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Thesis

AN EXPERIMENTAL EVALUATION OF  
A STUDY GUIDE  
AS AN ASSIGNMENT PROCEDURE IN  
TWO EIGHTH GRADE AMERICAN HISTORY CLASSES

Submitted by

Barbara May Burns

(A.B., Tufts College, 1939)

In partial fulfillment of requirements for  
the degree of Master of Education

1947

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BOSTON UNIVERSITY

SCHOOL OF EDUCATION

School of education  
November 5, 1947  
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Thesis

AN EXPERIMENTAL EVALUATION OF

A STUDY GUIDE

AS AN ASSIGNMENT PROCEDURE IN

TWO NIGHTS GRADE ARITHMETIC

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**First Reader:** William H. Cartwright, Asst. Prof. of Education

**Second Reader:** Dr. Roy O. Billett, Prof. of Education

**Third Reader:** Franklin C. Roberts, Prof. of Education

The writer wishes to express her deepest thanks to  
Mr. William H. Cartwright of the Eastern University School  
of Education for his suggestions and cooperation during  
the planning and execution of this study.





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## CHAPTER I

### STATEMENT OF THE PROBLEM

The present study is an experiment to determine the value of oral study guides as an assignment procedure in two eighth grade American History classes. Chapter one introduces the problem, chapter two summarizes previous work in the field, and the remaining chapters explain and report the results of the writer's controlled study.

If a home lesson has been well given, it should be attacked by the pupil with a purpose in mind. The benefits should be evident in class work, unit tests, and delayed recall tests.

However, assignments vary from teacher to teacher. At one extreme the teacher says, "Take the next five pages for tomorrow." <sup>1</sup> The more progressive teacher may work out such elaborate plans as guide sheets, contracts, or outlines for her classes to follow.

Doubtless, all teachers, if questioned, would give lip service to some "new type" assignment technique, but the facts do not substantiate the teachers' claims. One study

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<sup>1</sup> Bining, Arthur C. and Bining, David H., Teaching the Social Studies in Secondary Schools, McGraw Hill Book Company, New York, 1941, p. 223.



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1. Binns, Arthur C. and Binns, David H., Teaching the  
Social Studies in Secondary Schools, New York: Holt, Rinehart  
and Winston, 1931, p. 123.

found that 49.8% of all home lessons in one school were made on a basis of pages.<sup>2</sup> "Over and over again one hears an assignment given in this manner: 'For tomorrow, study from page 75 to page 85'.<sup>3</sup>" Educators and administrators say this practice is all too prevalent.

Yet, it has been said, "Of all the responsibilities which the teacher must face the assignment is the most important. It is the pivot of successful teaching."<sup>4</sup> Assignments, thus, are both varied and important.

Teachers need to know the comparative value of different types of assignments. Such studies as have been made of this problem, limited in number and inconclusive, are summarized in chapter two.

The time factor is second in importance to the type factor. If a teacher spends from four to ten minutes in a period to give an assignment, she should know whether or not the time spent has been worthwhile. If students are not benefiting by this time, it would be better for the in-

<sup>2</sup> Felkel, Anna C., "Study of the Assignment in a High School of Approximately Six Hundred Pupils," Unpublished master's thesis, University of Pittsburgh, 1924, reported in Yoakam, Gerald Alan, The Improvement of the Assignment, Macmillan Company, New York, 1934, pp. 16-18.

<sup>3</sup> Knudson, Charles W., Evaluation and Improvement of Teaching (In Secondary Schools), Doubleday, Doran and Company, New York, 1932, p. 170.

<sup>4</sup> Woodring, Maxie N. and Flemming, Cecile W., "Directing Study Through the Assignment", Teachers College Record XXXIII, (May, 1932), p. 673.





structor to spend it on other classroom activities. Should the students show profit, possibly even more time could be wisely devoted to the assignment. This study attempts to evaluate one device, the oral study guide, as an assignment procedure.

Yoakam states that there are at least four possible ways "of measuring the effectiveness of the lesson assignment."

"It may be judged by a single supervisor who passed his off-hand judgment as to its effectiveness. Second, if the supervisor is inclined to be a student of educational problems, the results may be measured by a score card or check sheet. Third, general results as secured in instruction from examinations or a battery of tests may be taken by another supervisor as a means of evaluating the assignment of lessons as well as of other factors. And finally, if the supervisor is still more scientific, he may make an experimental study of the effectiveness of the assignment of various sorts." 5

Yoakam casts the first out as unsatisfactory, gives elaborate check lists for the second, and says the others must be left for research.

In performing this particular research, two eighth grade American History classes in Sharon, Massachusetts, were studied. Both classes were under the instruction of the writer. The groups were similar in regard to size, age, sex, mental ability, and reading comprehension, but they were far from identical. One class, for instance, had an average

5 Yoakam, Gerald Alan, The Improvement of the Assignment, Macmillan Company, New York, 1934, p. 364.





I. Q. of 103, while the other had one of 112. The group with the higher average I. Q. also had a larger number of parents in the professions and fewer on farms. Their average age varied by only a few months.

Since it was impossible to equate the groups, a system of alternation was decided upon for the major units of the study. The material covered, during the period of the survey, was organized into three large units which were subdivided into a total of eight smaller sections. Each complete unit of work lasted about one month.

In presenting and studying the eight sub-divisions, two different types of assignment procedure were employed. Procedure A consisted of: 1. a problem to be answered based on the topic or topics being studied and 2. definite reading from the basic text covering one or more topics. Procedure B was exactly the same as procedure A except that a set of guide questions <sup>6</sup> was added. Given orally, these helps were designed to bring out essential points and to stimulate thought. To supplement the two methods, other devices were added to create interest, for example, library research, group projects, and individual creative activities. Both classes always participated in these activities, regardless of the procedure being used.

<sup>6</sup> For examples of guides see Appendix pp. 72-75.





Hereafter the groups will be referred to as "eight-one" and "eight-two" in order to distinguish between the two classes.

In initiating the study, "eight-one" used procedure B - reading material, a problem, and guide questions. Simultaneously, in studying the same section, "eight-two" followed procedure A - reading material and a problem. Thus, "eight-one" was given guide questions each day as aids while new work of Section I was under study. Meanwhile, "eight-two" had no supplementary aids, merely the central problem to be studied, also given to "eight-one". When the second section of the unit was taken up the pattern was reversed. "Eight-two" followed procedure B, "eight-one", procedure A. When the third and final section of unit one was being mastered, the system used with the first section was reverted to. Thus, the study guide, the controlled factor, was used by "eight-one" in sections one, three, five, and seven while "eight-two" had the special questions in sub-units two, four, six, and eight. The object of alternating the guide was to enable the writer to compare the performances of both classes both with and without the oral aids to study.

In order to make the comparison, eight pre-tests were given at the outset of the study. At the end of each section of a unit the initial test was again administered. The results were then tabulated. These findings plus those of a delayed recall test are reported in Chapter IV. By this





method, the writer determined the value of the oral study guides as an assignment procedure in two eighth grade American History classes.

#### A SURVEY OF RECENT STUDIES

Some studies and authors have conducted research which throw light on the value of a definite detailed assignment. Some have used the type of assignment under investigation in the form of a study guide to test its value in gaining understanding and factual information with eighth grade American History students.

Recent studies are abundant in their nature. Any study which compares two or more methods or devices in which assignments are listed or suggested is known as a comparison study. A study which is concerned with the value of a definite detailed assignment is known as a study of the value of a definite detailed assignment. For example, some investigation has been carried out, on such work as outlining versus no outlining. The former would be the kind of a definite detailed assignment. "Sources in History" is a study of the value of a definite detailed assignment. "How to study" is a study of the value of a definite detailed assignment. Studies which attempt to evaluate the results obtained by a variety of methods and to determine the value of a definite detailed assignment are known as studies of the value of a definite detailed assignment. Such research in the field of studies is recent years has dealt with inclusive "methods" of teaching





## CHAPTER II

### A SURVEY OF RELATED STUDIES

Some students and educators have conducted research which throws light on the value of a definite detailed assignment. None have used the type of assignment under investigation in the form of a study guide to test its value in gaining understandings and factual information with eighth grade American History students.

Relevant studies vary tremendously in their nature. Any study which compared two or more methods or devices in which definiteness or detail was, consciously or unconsciously, a factor was considered pertinent to this chapter. For example, some investigation has been carried out, on such work as outlining versus no outlining. The former would be one kind of a definite detailed assignment. Courses in "how to study" combined with a regular course add an element of definiteness. Studies which attempted to evaluate the results obtained by a mastery technique and an "old type" of question and answer procedure are basically concerned with method. However, the former would involve a work sheet of some type and therefore would be more detailed than the latter. Much research in the social studies in recent years has dealt with inclusive "methods" of teaching





rather than with a part of a "method" such as the assignment. Therefore, difficulty was experienced in locating studies of value.

While this survey is not a complete review of all related studies it is a reasonable cross section of related materials. Hence, the conclusions are believed to be the same as the author would have reached had it been possible to personally see every related study in the United States. Locations and library restrictions made this impossible.

The literature to be reviewed here may be divided into two classes: one, those studies which decidedly favor a definite detailed assignment and the other, those which result in outcomes which cannot be said to favor definiteness and, or detail. Now for a brief examination of the studies. The favorable ones are treated first.

Outlines, whether made by students or handed to them in prepared form, make for definite and detailed assignments, so the results of studies dealing with them are here reported. Barton investigated the effect of outlining as a study procedure in Ancient History, American History, and geography in the junior and senior high school.<sup>7</sup> The experiment, carried on with students in three schools of New York and

<sup>7</sup> Barton, William Alexander, Outlining As a Study Procedure, Columbia University Teachers College Contributions to Education, No. 411, New York, 1930.





New Jersey, involved ninety-four matched pairs. The non-outlining control group made an average gain of 27.3 points on tests but the experimental group, outlining the material assigned for study, gained 37.3 points. The investigator claims the difference to be a statistically reliable one and thus concludes that pupils "learned more facts because of outlining the material assigned for study".<sup>8</sup> He also concludes that outlining is "both an economical and efficient study device".<sup>9</sup> However, he has been criticized for making too broad a generalization.<sup>10</sup>

Using seventeen teachers in nine high schools in Los Angeles, California, Clemenson made an experimental evaluation of the use of prepared study outlines in physics.<sup>11</sup> Three groups were used: one having a prepared outline, the second having no outline, and the third being the outside control. Group one and two were taught by the same teacher, but in group three, the teacher did not know the outline - merely gave the same tests. The outline group did better on

<sup>8</sup> Ibid., p. 92.

<sup>9</sup> Ibid., p. 96.

<sup>10</sup> Knudsen, Charles W., "Social Studies," Review of Educational Research IV, (December, 1934), p. 463.

<sup>11</sup> Clemensen, Jessie Williams, Study Outlines in Physics (Construction and Experimental Evaluation), Columbia University Teachers College Contributions to Education, No. 553, New York, 1933.





both essay and objective tests for factual information. In this case, the students had been paired. A definite outline to follow, then, benefited the students.

Wright also studied the use of prepared outlines but by a different method. <sup>12</sup> One group was furnished a study outline while the other acted as a control. A second group was asked to write questions which could be answered from the reading. It, too, had a controlled section. Two equated groups at each level from grade four to seven were employed and tested by objective means. The study outline group showed improvement over the control in the same class by 27%, while those writing questions excelled by only 10%. Evidently the greater the detail, the more successful the study. The thesis has been criticized on the following scores: no sample of guide, no statement as to where it took place, no mention as to the number of pupils involved, and no clue as to how materials differed from grade to grade. <sup>13</sup>

Many people have worked on the problem of directed study which also makes a contribution to definiteness.

Beauchamp, in a study conducted at the University High School, University of Chicago, compared the value of directed study with undirected study on two eighth grade general

<sup>12</sup> Wright, Louise B., "The Value of a Motivated Assignment," Unpublished master's thesis, University of Pittsburgh, 1926, reported in Yoakam, op. cit. p. 199.

<sup>13</sup> Wesley, Edgar B., "Social Studies," Review of Educational Research V, (February, 1935), p. 80.





science classes.<sup>14</sup> The directed study group received training in: finding the central thought of a paragraph, determining the questions that should be answered to understand the topic, and reading a bloc of work to get the general plan. The two groups were tested by means of written reports, completion tests, and a series of thought questions. Although the two groups were not equated, they were similar. The directed study group obtained higher marks on several different units of work than the undirected group. Brumbaugh used two heterogeneous groups in two different schools to test the value of supervised study.<sup>15</sup> The experimental group used a commercial work book as guide in a laboratory method. The control group was taught by a traditional recitation procedure and had no supervised study. On identical tests the supervised study group rated higher but these

<sup>14</sup> Beauchamp, Wilbur L., "A Preliminary Experimental Study of Technique in the Mastery of Subject-Matter in Elementary Physical Science," Morrison, Henry Clinton and others, Studies in Secondary Education No. I, Supplementary Educational Monographs, No. 24, Department of Education, University of Chicago, Chicago, 1923, pp. 47-87.

<sup>15</sup> Brumbaugh, Emerson W., "A Comparative Study of the Recitation and the Supervised Study Methods of Teaching American History," Unpublished master's thesis, Wittenberg College, 1935, reported by Tryon, Florence R., "Directing Pupil's Study," in Barnes, C. C., (Editor), The Contribution of Research to the Teaching of the Social Studies, Eighth Yearbook, National Council for the Social Studies, 18 Lawrence Hall, Kirkland Street, Cambridge, Massachusetts, 1937. pp. 78-81





results may have been due to the method and not the guide.

Perry, using four groups of sophomores in Ancient History, two for control and two for experimental purposes found that the groups which received training in finding the central thought of a paragraph, its supporting details, and in outlining made greater gains on tests than the controlled sections.<sup>16</sup> This result was obtained in spite of the fact that assignments, textbooks, and tests were the same. The groups had been equated. Evidently, if students carry out their assignments in a detailed manner, they achieve better results on tests than those who do not use a detailed study procedure.

McKinnon and Burton studied the transfer effects of instruction in how to study.<sup>17</sup> Supposedly, those who have had such instruction will study in a more definite and detailed manner. Hence, the study is pertinent to the subject of assignment procedure. The only difference is that the students do it on their own rather than at the direction of the teacher. In this case, the experimental group had instruction and practice in such study techniques as comparing,

<sup>16</sup> Perry, Enos C., "The Effect of Certain Specific Study Directions on Achievement in Tenth Grade History," Unpublished master's thesis, Northwestern University, 1933, reported in ibid. pp. 99-101.

<sup>17</sup> McKinnon, Nettie J. and Burton, William H., "An Evaluation of Certain Study Procedures in History," Elementary School Journal XL, (January, 1940), pp. 371-379.





outlining, and sensing cause and effect. Four periods of forty minutes weekly were devoted to this. The control group had the same program except for the instruction in how to study. The experiment was carried on for eighteen weeks in La Grange, Illinois with two equated eighth grade groups taking American History. Both groups were given a pre-test and a final test. The examination on the ability to make comparisons showed the experimental group made a mean percentage gain of 53, while the control made only 8.8. On outlining, the results were 47.4 to 17.4. Other procedures showed similar results. On a Stanford Achievement Test in history, the experimental group gained twenty-four points, the control ten. The results prove the existence of a transfer.

To summarize the results of the studies thus far analyzed, directed study gives training in how to carry out details and this leads to greater accomplishment.

Research on the subject of a definite, detailed assignment revealed that most educators experiment with general methods of teaching rather than with particular methods of assignment.<sup>18</sup> However, a review of these studies is pertinent to the subject of this paper.

<sup>18</sup> For a summary of some typical studies in "methods" see Phillips, Burr W., "Investigations in the Field of Method," Barnes, C. C. (Editor), The Contribution of Research to the Teaching of the Social Studies, op. cit. pp. 44-74.





Esson and Cole compared the effectiveness of the contract and the ordinary method of teaching in eleventh grade American History classes.<sup>19</sup> Pairing the groups from ten high schools in North Dakota and Minnesota, a total of 275 pupils were used. The experimental group used the contract plan with three levels of work. All contracts were given out in written guide sheet form. The control group used the ordinary procedure but had the same initial and final tests. After three units of work, the results favored the contract plan. Statistically computing the chance for the difference between the two to be due to the procedure, the superiority of the contract over the ordinary method was found to range from 75 - 1 to 1.6 - 1. The supremacy of the more definite and detailed method was proved then, even though some of the teachers involved did not completely understand the contract method.

Willard compared the Ambridge Plan of Procedure ( a contract or modified Dalton Plan) with the daily recitation procedure.<sup>20</sup> The subjects were two sixth grade classes with thirty-six pupils each in the Liberty School, Ambridge,

<sup>19</sup> Esson, Victor E. and Cole, Robert D., "The Effectiveness of the Contract Method as Compared With the Ordinary Method of Teaching," School Review XXXVII, (April, 1929), pp. 272-282.

<sup>20</sup> Willard, Martha, "An Experiment in the Use of Two Methods of Instruction," Educational Method VIII, (June, 1929), pp. 505-510.





Pennsylvania. The Ambridge group each received a mimeographed assimilation sheet of the unit. On a semester objective test the experimental group had a median percentage of seventy-seven correct responses while the daily recitation group had fifty-seven. Greater assimilation was shown by the experimental group on the objective test. The assimilation sheet was certainly an aid to study but one cannot say that the superiority was due to the aid to study only.

Newer methods of presentation of material usually have written study aids in some form but whether these guides bring greater accomplishment on tests is debatable.

Turning now to reading and re-reading versus other methods of study, we find several papers contributing to this field of research.

The value of reading and rereading as compared with the more definite procedure of: 1. rapid reading, 2. re-reading, underlining, and taking notes, 3. reviewing the underlined portions and notes, 4. writing a brief summary, and 5. recalling what has been written; was tested by Dynes.<sup>21</sup> The subjects, who took both a pre-test and a final test, were distributed through four years of high school in four different schools. Two sets of material in American History were

<sup>21</sup> Dynes, John J., "An Investigation of the Relative Effectiveness of Two Study Techniques in History," Second Yearbook: Classroom and Administrative Problems in the Teaching of the Social Sciences, National Council for the Social Studies, McKinley Publishing Company, Philadelphia, 1932, pp. 197-201.





used, and both procedures were used with each student. The investigator conducted the experiment on an individualized plan. In regard to relative effectiveness, sixty-seven pupils learned more with the first method, seventy-four with the latter one, while four made equal gains with either method. The results show a slight superiority for the detailed method. However, the study was conducted on an individual rather than a class basis, and this factor must be born in mind in weighing the results.

Germane and Holmes, working on reading and re-reading versus reading guided by questions brought forth evidence favoring detailed guide sheets.

In the first of four experiments, Germane worked with students in grades five through nine in the Elementary and Junior High Schools of the University of Iowa.<sup>22</sup> Procedure A included: reading the article, writing a summary of the article, looking over the article, and adding to and correcting the summary. Procedure B involved reading the article as many times as possible within an allotted time. Both groups worked at the same time but in different classrooms. Both were given the same two tests. The re-reading group had superior results with a range of from 4.4 to 20.4

<sup>22</sup> Germane, Charles E., "Outlining and Summarizing, Compared with Re-reading as Methods of Studying," Whipple, Guy M. (Editor), Twentieth Yearbook of the National Society for the Study of Education Part II, Public School Publishing Company, Bloomington, Illinois, 1924, pp. 103-113.





percent. But, in a second experiment involving grades six through nine in a representative public school in Iowa, the results favored the group having the questions with a range of from 0 to 17. In another bit of research the experimental procedure, A, also involved first interesting the pupils in the problem and then placing questions in their hands. The third study used college students, mostly sophomores at the University of Iowa. This time the experimental procedure involved reading the article once, then answering questions mentally that had been placed in the hands of the subjects. Group A scored 30.5% higher than B. In a fourth experiment the same procedure was used in grades six through eight with similar results. The reading abilities of groups compared were equal or nearly equal. Except in the first experiment, the results favored the questions, indicating the advisability of focusing a student's attention on particular points or on definite details. The questions on the tests were the same as those on the guide sheets. Hence, on other questions, the same advantage might not be shown.

Holmes claims to have made a more complete investigation of this same problem.<sup>23</sup> Students at the State Teachers College, Mankato, Minnesota used English Literature and

<sup>23</sup> Holmes, Eleanor, "Reading Guided by Questions Versus Careful Reading and Re-reading Without Questions," School Review XXXVIII, (May, 1931), pp. 361-371.





science material with the two methods, reading guided by questions and careful re-reading without questions. They were tested for both immediate and delayed recall. The reading guided by questions proved to be better for both recalls, and, significantly, for meanings as well as questions used in the study. College people, then, get more out of their work, factual and interpretive, if guided by questions.

Mahoney, in using a fifth grade to test various methods of teaching history from a single text, found that when students read the assignment, were given questions, and re-read the lesson a higher percentage passed than under other methods which, to this writer, lacked definiteness.<sup>24</sup> When they merely read the text, before being tested, only 20% passed. But, when given questions after reading, and then allowed to re-read, 60% passed.

Bird, Bowen, Freeble, Maupin, Peterson, and Yoakam have conducted entirely unrelated experiments which contribute to the solution of the problem of definiteness and detail.

Bird worked with two groups of normal school students in biology classes in two succeeding semesters at Rhode

<sup>24</sup> Mahoney, Dorothy A., Using One History Text Book Throughout a Class, Unpublished service paper, Boston University School of Education, 1944, pp. 17-19.





Island Normal School.<sup>25</sup> The experimenter attempted to find out whether a detailed class explanation on what was to be studied for the next day was better than merely announcing that a test would follow. With the experimental group, one half hour was taken to give the assignment. Although the groups were not equated the evidence appears to side with detail because the average score for the control group on the test was 54.15 while that of the second class was 74.1.

Bowen, in tenth grade Latin, had a control group who received their assignments by lines while the experimental group was given a sketch of the passage, had the passage read aloud, and translated from sight.<sup>26</sup> The two were equated. The investigator claimed a definite superiority for the experimental group.

An experiment has also been reported in which Freeble, equating two groups by means of tests, compared the contract plan with the use of a study guide.<sup>27</sup> By statistical analysis

<sup>25</sup> Bird, Grace E., "An Experiment in 'Focalization,'" School and Society VIII, (November 9, 1918), pp.569-570.

<sup>26</sup> Bowen, Cornelia O. "An Experiment on the Effectiveness of Careful Assignments in Latin," Unpublished master's thesis, Pennsylvania State College, 1928, reported by Grinstead, Wren Jones "Latin" in Review of Educational Research II, (February, 1932), p. 65.

<sup>27</sup> Freeble, C. R., "An Experiment in Directing Thinking in Modern European History," University of Pittsburgh, School of Education Journal V, (March, 1930), p.97-100, reported by Knudsen, Charles, W., "Social Studies," in Review of Educational Research IV, (December, 1934), p.463.





on the basis of teacher constructed objective tests, he found the guide to be better. The reporter, however, believed the claim unwarranted.

Comparing the general and detailed assignment, Maupin, with two hundred freshmen in elementary child study, found superiority for the subject with college students when the assignment was detailed.<sup>28</sup> Briefly, the results follow:

	General	Detailed	Difference	P.E. of Diff.
Unit I	57.44%	81.854%	24.414%	:759
Unit II	53.213%	84.056%	30.843%	:75

In an older study, reported in 1916, Peterson showed the value of telling a class they would be required to reproduce a list, rather than, as in the other group, being told they would be responsible for it.<sup>29</sup> The results favored the first method probably because the objectives were more definite; or, stated differently, the assignment was more definite.

Yoakam, in a study of the effect of a single reading in the elementary grades, gave a pre-test to certain groups.<sup>30</sup>

<sup>28</sup> Maupin, Nellie, "A Study of the Detailed Assignment," Unpublished master's thesis, University of Iowa, 1923, Yoakam, op. cit., pp. 199-200.

<sup>29</sup> Peterson, Joseph, "The Effect of Attitude on Immediate and Delayed Reproduction: a Class Experiment," Journal of Educational Psychology VII, (November, 1916), pp. 523-532.

<sup>30</sup> Yoakam, Gerald Alan, "The Effect of a Single Reading," Whipple, Guy M. (Editor), Twentieth Yearbook of the National Society for the Study of Education, op.cit., PP: 90-102.



on the basis of teacher constructed objective tests, he found the guide to be better. The reporter, however, believed the claim unwarranted.

Comparing the general and detailed assignment, Mapping, with two hundred freshmen in elementary child study, found superiority for the subject with college students and the assignment was detailed. Briefly, the results follow:

Unit I	General	Detailed	Difference	T. of U.
	57.41%	57.55%	0.14%	193
Unit II	53.21%	54.05%	0.84%	175

In an older study, reported in 1916, Peterson showed the value of telling a class they would be required to reproduce a list, rather than, as in the other group, being told they would be responsible for it. The results favored the first method probably because the objectives were more definite; or, stated differently, the assignment was more definite.

Yoskan, in a study of the effect of a single reading in the elementary grades, gave a pre-test to certain groups.

- 38 Mapping, Nellie, "A Study of the Detailed Assignment," unpublished master's thesis, University of Iowa, 1925, Yoskan, pp. 199-200.
- 39 Peterson, Joseph, "The Effect of Attention on the Ability and Delayed Reproduction: A Class Experiment," *Journal of Educational Psychology*, VII, (November, 1916), pp. 182-183.
- 40 Yoskan, Gerald Alan, "The Effect of a Single Reading," *Whipple, Guy M. (Editor), Twentieth Yearbook of the National Society for the Study of Education*, pp. 90-102.

He found that the groups that had the pre-test were noticeable superior. This was no doubt true because they had had their attention focused on certain points -- definiteness again.

The preceding studies bring out the fact that definiteness and detail are factors to be reckoned with by teachers from the elementary grades to the college level, that there are varied ways of attaining definiteness, and that it is hard to keep outside factors from influencing one's study.

Now for the other side of the picture -- evidence which does not favor detail. While some studies are not outrightly opposed to definiteness and detail, they certainly cannot be said to be favorable studies.

Shepard, who made a study of the contract and the traditional daily assignment as methods of teaching in six sixth grade American History classes, using groups of equal ability, was able to find no superiority for contracts.<sup>31</sup> Yoakam says that variable discussions and recitations in the classes might have been a factor plus the point that the tests did not follow each unit of work. Therefore, the study is not completely reliable. Shepard's findings are the op-

<sup>31</sup> Shepard, E. L., "Comparative Study of the Contract and Traditional Daily Assignment Recitation Methods in Sixth Grade History," master's thesis, University of Pittsburgh, 1928, reported in Yoakam, The Improvement of the Assignment, op. cit. pp. 201-202.





posite of those of Esson and Cole.<sup>32</sup> However, the former worked with the sixth grade, and the latter with the eleventh grade. Conflicting results evidence outside factors.

Krause, working with grade five and six in science, compared answering questions at the end of text material with pupils constructing their own tests.<sup>33</sup> Both groups were eventually given teacher-made tests. A total of 102 matched pairs were involved. The group answering questions did better on the test but the author felt it more significant that the other group had a higher average ability to respond to the teacher test. This writer feels that group one had a more detailed assignment. Statistical computations gave the first group a 3% - 5% increase in learning and the second a 10.2%. This evidence is inconclusive, then.

Others who have also studied the problem of definiteness, put forth evidence which does not favor a detailed assignment. Funk compared the mastery technique, using guide sheets, with the method of daily recitation.<sup>34</sup> Four twelfth

<sup>32</sup> See p. 14.

<sup>33</sup> Krause, LaVern W., "A Comparison of Two Methods of Study," Elementary School Journal XL, (September, 1943), pp. 45-48.

<sup>34</sup> Funk, Mark Neff, "A Comparative Study of the Results Obtained by the Method of Daily Recitation and Assignment," School Review XXXVIII, (May, 1928), pp. 338-345.





grade classes in Problems of American Democracy studied nine units. Pupils of like intelligence, reading ability, and scores on initial tests were put into two groups. At the end of each unit, tests of five different kinds were given including: true-false, completion, and organization. The results showed no significant differences but the pupils preferred the mastery technique.

Crawford and Hamer, using printed study guides over a ten week period, found the improvement when guides were used so infinitesimal as to be statistically unreliable.<sup>35</sup>

If the study were repeated, the authors would not dare predict the same results. In the study one group used work sheets for five weeks and then had customary methods while the second group had the reverse procedure. Both immediate and sixty day recall tests were given of the true-false, brief answer, completion, and matching type. The students studied were again in the twelvth grade which means that little from an informational viewpoint is to be gained by using guides with seniors, according to the results of this study.

The reader will recall that in other studies, namely those of Bird and Maupin, evidence favored definite detail

<sup>35</sup> Crawford, C. C. and Hamer, Lloyd, Herbert, "An Experiment With the Use of Printed Study Guides," Educational Method IX, (June, 1930), pp. 541-544.





with college students.

Kimmel reviewed twelve studies dealing with methods of teaching the social studies in which conventional methods were contrasted with newer, more complicated methods.<sup>36</sup> The newer methods were more detailed than the "old type" procedures and usually employed some form of guide or worksheet. Kimmel found "...the findings based on test scores are lacking in agreement."<sup>37</sup> He came to the conclusion that the surveyed reports "do not seem to disclose any marked superiority favorable to either type of procedure."<sup>38</sup>

Reviewing the evidence, the signpost appears to point in one direction more definiteness and detail, but with something akin to fog along the road. Howard E. Wilson, in speaking of work sheets in connection with supervised study, believed them to be helpful to the teacher in more economical and effective direction of study.<sup>39</sup> But, he says there is no

<sup>36</sup> Kimmel, W. G., "A Review of Some Reports of Controlled Experimentation in Methods of Teaching in the Social Studies," First Yearbook: Some Aspects of the Social Sciences in the Schools, National Council for the Social Studies, McKinley Publishing Company, Philadelphia, 1931, pp. 145 - 170.

<sup>37</sup> Ibid., p. 155.

<sup>38</sup> Ibid., p. 156.

<sup>39</sup> Wilson, Howard E., "Worksheets as Aids in Supervised Study," Historical Outlook XX, (October, 1929), p. 287.





objective evidence to prove the point. While this is not a scientific study, as the considered opinion of an expert, it lends negative weight.

Again Wilson in an article summarizing research on methods of teaching says, "A number of studies have sought to evaluate phases of teaching procedure, usually on a comparative basis, but the studies of recent years have been no more conclusive than those of earlier years."<sup>40</sup>

To conclude, there is a good deal of evidence in favor of definiteness and detail in assignment but there are some studies which appear to contradict or make invalid other studies. The investigations here reviewed applied to only one grade level or to a limited number of grades. The same is true for subject matter. The data encourages a teacher to strive for more definite and detailed assignments but not to accept this as final. As Yoakam says, "The final evaluation of any technique -- contract, guide sheet, or what not -- must await the piling up of evidence from repeated experiments under carefully controlled conditions..."<sup>41</sup> The following chapters report one teacher's contribution.

<sup>40</sup> Wilson, Howard E., "Social Studies," Review of Educational Research VIII, (February, 1938), p. 70.

<sup>41</sup> Yoakam, The Improvement of the Assignment, op. cit., PP: 385-386.





### CHAPTER III

#### PLAN OF THE EXPERIMENT

As stated previously, the experiment was made to determine the effectiveness of oral study guides as an assignment procedure in two eighth grade American history classes. A review of the plan of the experiment involves a consideration of the local background, the rotating technique, the assignment procedure, the teaching method, and the testing procedure.

#### The School and the Community

To adequately understand the experiment, it is necessary for one to get a picture of both the school and the community. The classes involved were two eighth grade classes, both under the instruction of the writer, in the Charles R. Wilber School in Sharon, Massachusetts. The Wilber School is the wing of a larger building known as the Sharon High School. Most classes for eighth grade students, including American history, are in the wing. The set-up is that of a six-year high school. The junior high section is organized on a departmental basis. Each class used in the experiment met five times a week for forty minutes. Each class had but the one subject with the writer. However, the class referred to as "eight-two", was the author's home room group. Every





effort was made to treat both classes exactly the same in order that this factor might be of no significance.

The room in which the classes met was similar to any regular class room. An average size book case was kept in the room with a generous number of books suitable for reference work in American History. Also, at the disposal of all students was a set of the World Book Encyclopedia.<sup>42</sup>

The town, about twenty miles from Boston, could hardly be classed as either urban or rural. It is really a mixture of the two, more or less of the suburban type but with some farming carried on. It has a population of 3737.<sup>43</sup>

As stated in Chapter I, the two classes were similar in regard to size, sex, and age. Altogether forty-three students were involved in this experiment, twenty-six in "eight-one" and twenty-seven in "eight-two". The former group had fourteen boys and twelve girls, the latter fifteen boys and twelve girls. The two groups were not equal in ability. Intelligence tests, given in the preceding school year, showed a mean difference of nine points. However, as will be seen in the next chapter, the work of only thirty-two

<sup>42</sup> World Book Encyclopedia, (in 18 vols.), The Quarrie Corporation, Chicago, 1939.

<sup>43</sup> Irvine, E. Eastman, (Editor), World Almanac and Book of Facts for 1947, New York World Telegram, New York, 1947, p. 192.





students was counted in the statistical tabulation. The fifteen participating students in "eight-one" had a mean I. Q. of 103 while the seventeen students in "eight-two" had an average I. Q. of 117. From her experience with both groups the preceding school year, the writer was convinced the classes were not of equal ability. One class met the first period in the morning, the other met right after lunch. To compare the two groups under these circumstances would give a physical advantage to the students meeting the first of the day when minds and bodies are fresh. Since it proved impossible to obtain equated groups, a procedure had to be adopted which could function with unequal groups.

#### Rotating Technique

A method of rotating the two different assignment procedures between both groups was thus decided upon. One procedure involved a study guide; the second did not. Eight sections of work were studied. The pattern followed is shown on the next page. Such a process makes two sets of facts available for each class, results with a study guide and results without hints to study. The performance of a group under one method may be compared with that under a second. And too, by alternating, the chance that the discrepancy be due to the particular unit material is ruled out.

The study guides used in this experiment were drawn up by the writer. Sample guides may be found in the appendix.

See p. 72-73.





### Pattern of the Rotation

Units of Work	Class 8 <sup>1</sup>	Class 8 <sup>2</sup>
Section 1	Guide	No Guide
Section 2	No Guide	Guide
Section 3	Guide	No Guide
Section 4	No Guide	Guide
Section 5	Guide	No Guide
Section 6	No Guide	Guide
Section 7	Guide	No Guide
Section 8	No Guide	Guide

### Study Guides

Before proceeding further, a definition of the term "study guide" as used in this research is called for. The term "study guide" as here used consists of a major problem to be solved, the answer to which will be obtained from answering a number of other questions raised. In all cases, the guide questions were written down in as full a manner as was considered necessary by the students. All were urged to keep books open and to follow along in text books as guides were dictated. The average time devoted to the writing down of the guide hints was six minutes.

The study guides used in this experiment were drawn up by the writer. Sample guides may be found in the appendix. <sup>44</sup>

<sup>44</sup> See p. 72-75.





Two typical assignment procedures for a single day are given below for comparison.

#### PROCEDURE A - NO GUIDE

PROBLEM: Why did Andrew Jackson appeal to the common man? Study Introduction and Section I (pp. 215-218).

#### PROCEDURE B - STUDY GUIDE

PROBLEM: Why did Andrew Jackson appeal to the common man?

Hints: What personal traits of Andrew Jackson made him popular?

What incidents in his life developed his character or appealed to the people?

The election of Jackson meant that what type of people were coming into political power?

What political party did he represent?

What was Jackson's idea of the presidency?

What is meant by the "Spoils System"?

Study Introduction and Section I (pp. 215-218).

After studying each section of work, a test was administered for the purpose of obtaining a degree of validity for the guides. No conscious attempt was made to put into the tests material which had been asked for in the aids to study, but obviously, some would appear.

In drawing up the hints for study, some purely factual questions were put in. This was done because the material was considered as fundamental or basic in understanding the problem being presented. These questions also aimed to hold the interest of the lower section of the class. By making





the questions simple, it was felt the students would not become easily discouraged. The author also felt some comparatively simple questions necessary because of the fact that the eighth grade students are at a transition level between the elementary school and the high school. They cannot digest more than they can chew. A mixture of the two types of questions was deemed advisable.

However, as in all groups, many students with outstanding ability were also using the guide questions. Considerable effort was expended in putting into the study guide questions which would challenge those of high ability and create within them a desire to seek further information. It was to be hoped that the best students would answer each and every question put to them. The slower learner was neither required nor expected to do this. Students were merely encouraged to do their best. No written answers were ever called for.

#### Values of a Study Guide

A study guide is not the only worthwhile kind of assignment, but it does have many features which make it valuable. These are:

- 1 A study guide is definite. It focuses the attention of the student on a particular problem.
- 2 The pupil knows when the problem is mastered. The pupil will not flounder around wondering whether he has done what is required of him.





- 3 The assignment is clear. The problem to be answered is distinctly seen by the pupil. The suggestions for study are understood.
- 4 Time and energy are conserved by the pupil in carrying out the assignment because the student knows his job, goes at it, and completes it.
- 5 The study guide prevents wandering at random when completing homework. This happens so often at the eighth grade level that the guide seems particularly commendable.
- 6 Discouragement and confusion are lessened because the assignment is clear and definite.
- 7 Problems and questions may be so worded as to encourage students to consult supplementary references. This not only develops a much-needed use of reference books but it also means that the assignment has two or three levels of work.
- 8 The inclusion of both thought and factual questions means that all students will be able to find suitable and appealing work within the study guide assignment.
- 9 The hints to study may easily be organized into meaningful units and sub-units of work.
- 10 The questions, if kept by the students, serve as a good method of review.





### The Disadvantage of This Study Guide

The chief disadvantage of the study guide here used is the fact that it was dictated to the students. It was realized that if presented in written form it would have been much more accurate and useful, but the writer felt that under such conditions the students could easily nullify the experiment's results. The members of the experimental classes were very friendly. Mimeographed sheets would, no doubt, have been passed back and forth from students who had guides to those who did not have them for the particular section of work. By using a method of dictation, it was hoped that students would put the information in assignment notebooks used for all subjects. The writer felt students would be reluctant to let these pass out of their hands. As was to be expected, not all students used notebooks for the dictation. However, at no time did the writer note any exchange of guides from members of one class to those of another.

No student was ever required to write down the hints to study. The guide was considered to be so valuable that the students would want to take it down. Except in the cases of three students, all of high mentality, the questions were written down because the students wanted them. These three always followed the textbook closely as the questions were dictated so that they probably obtained a better mental picture of the guide than the written one which some students





had. The number of advantages definitely off set this disadvantage.

### The Use of Other Assignments

To limit the assignments merely to study guides would have made for monotony, something to be definitely avoided at eighth grade level. Homework, other than the oral aids, was always the same for both classes. Work carried on included such items as: the construction of flour and salt maps, the making of small notebooks, the developing of time lines, the writing of definitions and explanations of key words, the drawing of cartoons, the production of dioramas, the presentation of debates, and the production of illustrated maps and letters. Sometimes these assignments were given in place of guides, sometimes to supplement, and sometimes to be carried on simultaneously over a period of time. Of course, the study guide was the one type most often used. It was the only way in which the two classes were treated differently.

In making the assignments, the writer kept in mind Yoakam's tabulation of eighteen writer's characteristics of a good assignment.<sup>45</sup>

- |                 |                       |
|-----------------|-----------------------|
| 1. Definiteness | 6. Exposition         |
| 2. Clearness    | 7. Preparation        |
| 3. Interest     | 8. Direction          |
| 4. Stimulation  | 9. Discrimination     |
| 5. Inspiration  | 10. Individualization |

<sup>45</sup> Yoakam, The Improvement of the Assignment, op. cit. p. 89





Knowlton's remarks that, "It has always been recognized that any assignment of work to be accomplished must conform: (1) to the child's interests and capacities, (2) to the specific purposes sought in presenting that material or in comprehending it, and (3) to the general organization of the materials or subject matter which have been selected.",<sup>46</sup> were born in mind.

### Teaching Procedure

The assignment, of course, is only one part of any teaching method. Therefore, it was necessary to decide on a teaching procedure with which the study guide could be used. The unit method was selected. The material to be covered was divided into three units and each one of these was divided into subdivisions of two or three units. Three complete units were studied during the course of the experiment. For the actual study of a section of a unit, the writer followed, in so far as was possible, the five steps in the unit procedure as set up by Morrison:<sup>47</sup>

- |                 |                 |
|-----------------|-----------------|
| 1. Exploration  | 3. Assimilation |
| 2. Presentation | 4. Organization |
| 5. Recitation   |                 |

<sup>46</sup> Knowlton, Daniel C., History and the Other Social Studies in the Junior High School, Charles Scribner's Sons, New York, 1926, p. 48.

<sup>47</sup> Morrison, Henry C., The Practice of Teaching in the Secondary School, (Revised Edition), The University of Chicago Press, Chicago, 1931, pp. 255-338.





### Unitary Organization of Material

Unit I How did American Life Become Better for the Common Man?

Section 1. What benefits and problems were brought about by the beginnings of the Industrial Revolution?

Section 2. How was democracy strengthened by the Revolution of 1828?

Section 3. How did Americans seek a better life for all in the first half of the nineteenth century?

Unit II How Did the United States Acquire and Hold Land in the West and What Effect Did the Frontier Have Upon the Country?

Section 1. How Did the United States Acquire and Hold Land as Far West as the Mississippi River?

Section 2. How Did the United States Acquire and Hold Land in the Far West and What Effect Did the Frontier Have Upon the Country?

Unit III How Did the Nation Divide and Reunite?

Section 1. How Did the Problem of Slavery Divide the Nation?

Section 2. How Did the Civil War Test Democracy?

Section 3. How Were the North and South Reunited Into One Nation?

In studying this material, the basic textbook employed

was The Story of American Democracy by Casner and Gabriel. <sup>48</sup>

<sup>48</sup> Casner, Mabel B. and Gabriel, Ralph H., The Story of American Democracy, Harcourt, Brace and Company, New York, 1945.





As mentioned earlier, supplementary books were available. At times it was necessary to consult these books in order to answer the guide questions.

### Use of the Blackboard

For each unit, a list of supplementary reading references was kept on the board showing the exact pages to be consulted for material on the unit. This list was available to both classes regardless of the assignment procedure being used.

The problem to be answered for each one of the eight sections was always on the board when that particular section was being studied. This, too, was available to both classes regardless of procedure.

On a section of the board, always reserved for assignments, the problem question for the following day was placed. Beneath this was made a notation of the section or sections to be studied and beside this, in parentheses, the exact page numbers were noted. The blackboard looked something like this for a typical day.

#### AMERICAN HISTORY

Problem: Why did Jackson appeal to the common man?  
Study Introduction and Section I (pp. 215 - 218).

This, too, was available to both classes. The one item which was not available to both classes at the same time was the study guide.

H., The Nature and Direction of Learning,  
D. Appleton Century Company, New York, 1929,  
pp. 204-256.





### Time Element

The experiment began on February 3, 1947 and was completed on May 14, 1947 with the administration of the final test. This allowed about a month for a unit.

In order to determine the importance of this assignment technique, a set of guide questions was given each time a new phase of the work was undertaken. In connection with the study hints, a decision had to be made as to the part of the class period when the aids would be given out. Three possibilities presented themselves: (1) at the beginning of the period, (2) at the end of the period, or (3) at the point in the lesson where the unfolding of the problem best justified its insertion. The writer's feelings were similar to those of Burton who felt that no rules could be made but that more often it should come at the beginning of the period.<sup>49</sup> For the sake of uniformity in this experiment, it was always given at the outset of the period in order to be sure that ample time was allowed. From four to eight minutes were required to give out the assignment, the exact time depending upon the length of the individual study guide.

All phases of the teaching procedure having been

<sup>49</sup> Burton, William H., The Nature and Direction of Learning, D. Appleton Century Company, New York, 1929, pp. 454-456.





explained completely, a consideration of the testing plan is now necessary.

### The Testing Procedure

As was seen on page 36 the three major units of work were broken down into a total of eight sub-sections. A teacher-constructed objective test was made for each one of these eight sections. Suggestions for changes in the tests were made by two teachers of American History so that a total of three teachers had a hand in the construction of the eight final tests. Each test had a total of twenty questions. The number of each type of question varied from test to test.<sup>50</sup> Each type of question was not found on every test. Below is a list of each of the six question-types included with an example for each.

1. Blank to be filled in.

The Civil War started in the year \_\_\_\_\_.

2. Multiple choice.

Women received the right to vote: (1) before the Negro, (2) after World War I, (3) during the Jacksonian Era, (4) after the War of 1812.

3. Reverse multiple choice.

New inventions brought problems which tended to: (1) unite the North and South, (2) divide the North and South, (3) develop sectionalism, (4) hasten the Civil War.

<sup>50</sup> See p. 76 for samples of the tests.



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3. Reverse multiple choice.

New inventions brought problems which tended to: (1) unite the North and South, (2) divide the North and South, (3) develop sectionalism, (4) hasten the Civil War.

50 See p. 36 for samples of the tests.

## 4. Matching.

- |                     |   |
|---------------------|---|
| ( ) Elias Howe      | 1. Built first clipper ship.                  |
| ( ) Cyrus McCormick | 2. Invented cotton gin.                       |
| ( ) Samuel Slater   | 3. Invented sewing machine.                   |
| ( ) Eli Whitney     | 4. Built earliest textile machine in America. |
|                     | 5. Invented the steam engine.                 |
|                     | 6. Invented farm machinery.                   |

## 5. Chronological order.

The following have made their appearance as sources of power in the United States at various times. Put a 1 in the parentheses before that first used and 2 before that most recently developed.

- |           |
|-----------|
| ( ) Oil   |
| ( ) Steam |
| ( ) Water |

The questions, 180 in all, were of both the factual and thought-question variety. Every effort was made to include as many of the latter type as possible. This experiment was conducted, in part, to determine the effect of a study guide upon a student's ability to answer thought questions.

The same set of eight tests was administered to each class three times. The pre-test was given in order to find out how much was known about the three units before any studying was done. For the pre-tests, the students were told that they were not expected to know all the answers, that the marks would not count toward their grade in the course, but that they were expected to do their best. For each test the students were allowed twenty minutes. Two tests were administered each day





for four days. By giving all pre-tests in advance of study, little, if any, carry-over remained for the test after study. Student questions after the test proved that an interest in the subject had been stimulated.

After each unit had been studied, the same test was again given to the students. Twenty minutes were again allowed for completion of the test. Many students inquired as to whether it was the same test as they had taken earlier. Apparently, there was not a conscious carry-over. As each test was given for the second time the students were informed that their test marks would count toward their term mark.

On June 13, 1947, the eight tests were again administered to both classes in order to test delayed recall ability in relation to use or non-use of a study guide. The tests were administered in two separate forty minute periods. Seven minutes were allowed for the completion of each test. Students were informed that marks would count toward their final grade in the course. Although it was necessary to give the tests in two separate periods, the program of each class was such that no opportunity for study in order to review presented itself. The students were told in advance that they were to be given a final examination; however, no hint was given that it would be the same set of tests.





One more word only is necessary to complete this discussion of the tests and the testing procedure. In constructing the tests the writer had to be careful that the possible answers included only material which had been studied or which was within the realm of experience of the classes. In a multiple choice question, for instance, the possible answers had to deal with material already studied or then being studied in the unit, otherwise, the pupil could get the answer by a process of elimination. This fact made test construction difficult.

#### Constant Factors

Indiscussing the plan of the experiment, mention should be made of the constant factors. Most of these have been touched upon within this chapter. To summarize, however: The room, equipment, teacher, text book, teaching method, date of presentation, and duration of study were exactly the same for both classes.

The non-constant controlled factor was the study guide. The only other non-constant factor was the way a class period developed. The writer tried to make these as much alike as possible. Obviously, they could not be the same. However, the fact that the experimental factor was rotated four times for each class made this unimportant.

The plan of this experiment includes a rotational use of a study guide with a unitary teaching procedure. The





statistical treatment of the results obtained from the tests is discussed in the next chapter.

## ORGANIZATION AND ADMINISTRATION OF THE STUDY

Because the two groups were not equal in size, the technique was deemed appropriate. The following tables have been used for gathering the data and suggested by the author. Two classes were used, two methods were used, and two tests were used. A pre-test and a final test were administered to each class. By using the formulae shown below, four different changes were produced.

### Mathematical Methods

Two classes --  $S^1$

--  $S^2$

Two procedures -- Procedure A -- 20 miles (old method)

Procedure B -- 10 miles (new method)

$S^1$  -- Pre-test -- Procedure A -- 20 miles -- Change 1

$S^2$  -- Pre-test -- Procedure A -- 20 miles -- Change 1

$S^1$  -- Pre-test -- Procedure A -- 20 miles -- Change 1

$S^2$  -- Pre-test -- Procedure B -- 10 miles -- Change 2

[Change 1 = 10]

[Change 2 = 20]

51 20001, Miller, A., How to Read a Map, New York, 1947, p. 10.





## ORGANIZATION AND ANALYSIS OF THE DATA

### Rotational Method

Change 2 + 3

44





To find each change, the results of the pre-test are subtracted from those of the second test. By adding change 1 and change 4, the net gain for both classes by procedure B, or the new method is found. Then, by adding change 2 and change 3, the net gain for both classes by Procedure A, or the old method is obtained. These two figures are then used as those for the numerator in the formula for determining the critical ratio.<sup>52</sup>

Instead of using each procedure with each group just once, as shown above, the writer used each method with each class four times. Four times group "eight-one" was given a test after it had used the guide and four times it was given a test when it had not had the help of a guide. Similarly, the same system was used for "eight-two" except that whereas the former had the guide for sections one, three, five, and seven, the latter used the guide for sections two, four, six, and eight.

By this method, the performance of each class could be compared both with and without the experimental factor, or the total performance of the two classes under one procedure might be contrasted with that under the second method. Therefore, the procedure was deemed adequate. When the the test figures had been tabulated, it was

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<sup>52</sup> See p. 52.





found that fifteen pupils in "eight-one" and seventeen students in "eight-two" had taken all the pre-tests and all the final tests. All future figures will be based on the grades of these thirty-two students.

To facilitate comparison with the second set of tests, the pre-test grades for each student in "eight-one" were divided into two sections. One included the scores on one, three, five, and seven. The second included the grade on two, four, six, and eight. The student's mean score for each set of four tests was obtained.<sup>53</sup> The same procedure was followed for "eight-two."

The exact procedure was again pursued to get the average for each student on the final test for the four times he used the guide and on an equal number of occasions when he lacked the guide.<sup>54</sup>

The average score of each pupil in "eight-one" on pre-test one, three, five, and seven was subtracted from the individual's average score on the final tests for the same sections in order to obtain the mean gain. These were the sections with which "eight-one" used the

<sup>53</sup> Individual and average scores for each pupil may be found on p. 64-67.

<sup>54</sup> Ibid.





study guide.

The average score of each student in "eight-two" on pre-test two, four, six, and eight was subtracted from the individual's average score on the final tests for the same sections in order to find the mean gain. These were the sections with which "eight-two" used the study guide. The students' mean gains for each method were totalled as shown on the following pages.

A	45	33	20	45	75	20
B	50	28	40	40	30	40
C	40	72	31	40	80	31
D	40	85	40	33	75	42
E	33	68	34	40	64	24
F	30	60	30	33	65	32
G	31	64	33	40	65	30
H	23	70	28	32	70	38
I	44	64	20	40	61	16
J	36	64	20	44	69	18
K	31	64	40	32	68	36
L	33	50	17	16	53	37
M	34	60	37	40	57	42
N	45	70	25	35	65	30
O	60	58	28	51	54	27
Total 358			Total 358			





TABLE I  
GROUP 8<sup>1</sup>  
MEAN GAINS ON  
IMMEDIATE-RECALL TESTS

Pupil	Average of Sections 1, 3, 5, 7		MEAN  GAIN	Average of Sections 2, 4, 6, 8		MEAN  GAIN
	Pre- Test	Immediate Recall Tests Guide		Pre- Test	Immediate Recall Tests No Guide	
A	45	83	38	45	75	30
B	50	96	46	48	96	48
C	48	79	31	48	80	32
D	40	88	48	33	76	43
E	35	69	34	40	64	24
F	30	60	30	33	55	22
G	61	93	32	45	93	48
H	53	79	26	38	85	47
I	44	64	20	40	56	16
J	35	55	20	34	49	15
K	51	94	43	55	89	34
L	23	90	67	18	93	75
M	54	89	35	43	89	46
N	45	76	31	33	68	35
O	66	89	23	51	88	37
Total 524			Total 552			



TABLE I  
GROUP B  
MEAN GAINS ON  
IMMEDIATE-RECALL TESTS

Pupil	Average of Sections 1, 2, 3, 7		MEAN GAIN	Average of Sections 2, 4, 5, 8		GAIN
	Pre-Test	Immediate Recall Tests Guide		Pre-Test	Immediate Recall Tests No Guide	
A	45	52	38	45	75	30
B	50	56	48	48	66	49
C	48	79	31	48	80	32
D	40	68	48	33	70	43
E	35	69	34	40	54	24
F	30	60	30	33	63	23
G	61	93	32	48	93	45
H	53	79	26	39	88	47
I	44	84	20	40	56	16
J	35	65	20	34	43	19
K	31	94	43	56	69	34
L	53	90	37	19	93	73
M	54	89	33	43	89	46
N	45	78	31	33	66	35
O	66	89	23	31	89	27
Total 535		Total 535		Total 535		

TABLE II  
 GROUP 8<sup>2</sup>  
 MEAN GAINS ON  
 IMMEDIATE-RECALL TESTS

Pupil	Average of Sections 2, 4, 6, 8		MEAN  GAIN	Average of Sections 1, 3, 5, 7		MEAN  GAIN
	Pre- Test	Immediate Recall Tests Guide		Pre- Test	Immediate Recall Tests No Guide	
AA	29	73	44	39	88	49
BB	28	88	60	51	83	32
CC	50	89	39	66	88	22
DD	43	74	31	40	65	25
EE	76	99	23	89	94	5
FF	51	91	40	49	91	42
GG	35	55	20	56	73	17
HH	55	88	33	58	93	35
II	41	94	53	49	85	36
JJ	39	79	40	51	78	27
KK	36	91	55	36	88	52
LL	48	95	47	51	94	43
MM	34	74	40	44	79	35
NN	41	69	28	41	73	32
OO	45	86	41	56	86	30
PP	55	91	36	55	91	36
QQ	41	85	44	56	84	28
Total 674				Total 546		





An examination of the foregoing figures shows change one to be 524, change four, to be 674. These two figures were then added together and their total divided by thirty-two, the total number of students for whom complete statistics were available.

Charted thus:

$$\begin{array}{rclclcl} \text{Change 1 + 4} & = & \text{Total, divided by no. of cases} & = & \text{Mean Gain I} \\ 524 + 674 & = & 1198 & \div & 32 & = & 37.44 \end{array}$$

$$\begin{array}{rclclcl} \text{Change 2 + 3} & = & \text{Total, divided by no. of cases} & = & \text{Mean Gain II} \\ 546 + 552 & = & 1098 & \div & 32 & = & 34.31 \end{array}$$

Before the critical ratio could be determined for the above figures, the necessity of finding the standard deviation of the mean gains by each of the two procedures presented itself. There were thirty-two individual average gains for each method. The following formula was used to determine the standard deviation from an assumed mean for each method.<sup>55</sup>

$$S.D = \sqrt{\frac{\sum fd^2}{N} - \left(\frac{\sum fd}{N}\right)^2}$$

For the old method, that is no study guide or

<sup>55</sup> Sorenson, Herbert, Statistics for Students of Psychology and Education, McGraw-Hill Book Company, New York, 1936, p. 142





procedure A, the standard deviation was found to be 13.0 and for the study guide procedure 11.3.

In determining whether the critical ratio in this study indicated statistically significant results, the writer was guided by the following statements by Mills. <sup>56</sup>

"If a given difference between hypothetical and observed values would occur as a result of chance only 1 time out of 100, or less frequently, we may say that the difference is significant. This means that the results are not consistent with the hypothesis we have set up. If the discrepancy between theory and observation might occur more frequently than 1 time out of 100 solely because of the play of chance, we may say that the difference is not clearly significant. The results are not inconsistent with the hypothesis. The value of T (the difference between the hypothetical value and the observed mean, in units of the standard error of the mean) corresponding to a probability of 1/100 is 2.576. One hundredth part of the area under the normal curve lies at a distance from the mean, on the x-axis, of 2.576 standard deviations or more. Accordingly, tests of significance may be applied with direct reference to T, interpreted as a normal deviate (i.e., as a deviation from the mean of a normal distribution expressed in units of the standard deviation). A value for T of 2.576 or more indicates a significant difference, while a value of less than 2.576 indicates that the results are not inconsistent with the hypothesis in question." <sup>57</sup>

"Some statistical workers employ odds of 1 out of 20 as a limit, rather than 1 out of 100. With this standard we would accept as significant (i.e., not due to chance) a difference between hypothetical and observed values that would occur only 5 times out of 100, or less frequently, as a result of random fluctuations of sampling. The value of T corresponding to this standard is 1.96." <sup>58</sup>

<sup>56</sup> Mills, Frederick Cecil, Statistical Methods (Applied to Economics and Business), (Revised), Henry Holt and Company, New York, 1938, p. 471, p. 472.

<sup>57</sup> Ibid., p. 471.

<sup>58</sup> Ibid., p. 472.





The writer selected a five percent level of significance which would require a critical ratio of 1.96.

The following formula was used for obtaining a critical ratio.<sup>59</sup>

$$C.R. = \frac{G_I - G_{II}}{\sqrt{\left(\frac{SD_I}{\sqrt{N_I}}\right)^2 + \left(\frac{SD_{II}}{\sqrt{N_{II}}}\right)^2}}$$

Using this formula, a critical ratio of 1.0296 or 1.03 is found. According to the pre-determined standard, this figure is not large enough to be significant. The ratio of 1.03 means that, if the experiment was to be repeated, in only 84.8 cases out of 100 would the results be the same.<sup>60</sup>

To summarize the statistics, the mean gain by classes when a study guide is used is greater than the mean gain when a study guide is not used. However, the mean gain is not large enough to be statistically reliable. The author could not guarantee that another person would come out with the same results. A statistical summary of the results of the tests for immediate recall follows.

<sup>59</sup> Garret, Henry E., Statistics in Psychology and Education, Longmans, Green and Company, Chicago, 1926, p. 133

<sup>60</sup> Sorenson, Herbert, op. cit., p. 367.





TABLE III  
SUMMARY OF STATISTICAL TREATMENT  
PRE-TESTS AND IMMEDIATE-RECALL TESTS

Procedure	Group	Sections	No. Of Pupils	Total Mean Gain For Each Class
A	8 <sup>1</sup>	2, 4, 6, 8	15	552
A	8 <sup>2</sup>	1, 3, 5, 7	17	546
B	8 <sup>1</sup>	1, 3, 5, 7	15	524
B	8 <sup>2</sup>	2, 4, 6, 8	17	674





TABLE III (cont.)

SUMMARY OF STATISTICAL TREATMENT  
PRE-TESTS AND IMMEDIATE-RECALL TESTS

Pro- cedure	Total Mean Gain $s^1 + s^2$	Average Of Per Pupil Mean Gains	Standard Deviation	GI - GII	Critical Ratio
A	1098	34.31	13	3.13	1.0296
B	1198	37.44	11.3		





A tabulation of the number of mean gains by sex for the two classes indicates that more girls achieved better results with a guide than boys. Possibly, this is due to the fact that girls generally take their studying more seriously than do boys at this grade level, and, therefore, make more constant and thoughtful use of their guides. Eleven girls gained more with the guide, four achieved better results minus the study device. Out of a total of seventeen boys, one made the same mean gain regardless of the procedure. Of the remaining sixteen, eight gained more with procedure A, and an equal number attained better results with method B. The resultant ratio is 2.75 to 1 in favor of the use of a study guide by girls.

TABLE IV

NO. OF MEAN GAINS  
BY SEX AND CLASS ON  
IMMEDIATE-RECALL TEST

Girls	Mean Gain Higher With Guide	Mean Gain Higher Without Guide
8 <sup>1</sup>	4	3
8 <sup>2</sup>	7	1
Total	11	4
Boys		
8 <sup>1</sup>	3	5
8 <sup>2</sup>	5	3
Total	8	8



A tabulation of the number of mean gains by sex for the two classes indicates that more girls achieved better results with a guide than boys. Possibly, this is due to the fact that girls generally take their studying more seriously than do boys at this grade level, and, therefore, make more consistent and thoughtful use of their material. Eleven girls gained more with the guide, four achieved better results minus the study device, and of a total of seventeen boys, one made the same gain regardless of the procedure. Of the remaining sixteen, eight gained more with procedure A, and an equal number obtained better results with method B. The resultant ratio is 2.75 to 1 in favor of the use of a study guide by girls.

TABLE IV

NO. OF MEAN GAINS  
BY SEX AND CLASS ON  
LANGUAGE-ARTS TEST

Girls	Mean Gain With Guide	Mean Gain Without Guide
81	4	0
82	7	0
Total	11	0
Boys		
81	2	1
82	2	0
Total	4	1

### DELAYED RECALL RESULTS

As well as immediate recall tests, delayed recall ones were given. On June 13, 1947, one month after the completion of the third unit, the same tests which had been administered twice before were given again to find out whether the use of a guide during the mastery of a unit had any effect on delayed recall results. Only eight minutes were allowed for completion of the tests. In a few instances, students did not finish. However, their grade was determined on the basis of the number of questions which they actually completed. The same pre-test figures were used, and the same method for obtaining mean gains was employed.<sup>61</sup> Delayed recall test figures could be obtained for only thirty of the thirty-two students who participated in the immediate recall test figures.

TABLE V

#### SUMMARY OF RESULTS - DELAYED-RECALL TESTS

Class	Mean Gain Procedure A	Mean Gain Procedure B
8 <sup>1</sup>	508	441
8 <sup>2</sup>	357	479
Total	865	920
Average Per Pupil Mean Gain	28.89	30.67

<sup>61</sup> See p.64,66; 68, 69; 70,71.





The reader will note that "eight-one" did better on the section in which it had not had the benefit of the guide but that "eight-two" did better on the sections in which it had the use of study aids. The total mean gain still favors the new method. However, the critical ratio would be even smaller than on the second test, hence below the five percent level of significance. The difference of the means, on immediate recall, it will be remembered, was 3.13 while on delayed recall it becomes only 1.78. No sex correlation of significance could be found for delayed recall as the chart below indicates.

TABLE VI

NO. OF MEAN GAINS BY SEX AND CLASS ON  
DELAYED-RECALL TESTS

Girls	Mean Gain Higher With Guide	Mean Gain Higher Without Guide
8 <sup>1</sup>	3	4
8 <sup>2</sup>	5	3
Total	8	7
Boys		
8 <sup>1</sup>	4	4
8 <sup>2</sup>	5	2
Total	9	6





The foregoing figures indicate that on a delayed recall test the presence or absence of a guide is of little significance.

On delayed recall, students remembered and were able to interpret about the same number of questions regardless of the assignment procedure.

Judging by test results in this study, a guide is beneficial for immediate recall but of little value as far as delayed recall is concerned.

The following chart summarizes mean gains for both the immediate and delayed-recall tests.

Procedure	No.	Total Mean Gain	Per Pupil Mean Gain	Difference B - A
A	32	1009	31.53	
B	48	1098	22.66	8.87

TABLE VIII

MEAN GAIN VALUES  
IMMEDIATE-RECALL TEST

Procedure	No.	Total Mean Gain	Per Pupil Mean Gain	Difference B - A
A	32	865	26.88	
B	30	820	27.33	0.45





### MEAN GAIN SUMMARY

Three tests involved.

First test --- Given before start of experiment.

Second test --- Given immediately after study of each unit.

Third test --- Given one month after close of experiment.

Two procedures involved.

Procedure A --- No. Guide.

Procedure B --- Study Guide.

#### TABLE VII

#### MEAN GAIN SUMMARY IMMEDIATE-RECALL TESTS

Procedure	No.	Total Mean Gain	Per Pupil Mean Gain	Difference G I - G II
A	32	1098	34.31	
B	32	1198	37.44	3.13

#### TABLE VIII

#### MEAN GAIN SUMMARY DELAYED-RECALL TESTS

Procedure	No.	Total Mean Gain	Per Pupil Mean Gain	Difference G I - G II
A	30	865	28.89	
B	30	920	30.67	1.78





## CHAPTER V

### SUMMARY AND CONCLUSIONS

The purpose of this experiment was to determine the effectiveness of oral study guides as an assignment procedure in two eighth grade American History classes. Two methods of assignment were employed: one in which no study guide was used, and a second in which the study guide was dictated orally. Each of the two classes studied four units with a guide and four units without a guide so that the performance of the two classes with a study guide could be compared with the performance of the two classes without a study guide. A rotational procedure, resulting in four different changes was employed. The results of the two sets of changes by the same method were added and the difference noted. The foregoing routine was followed for both immediate recall and for delayed recall tests. A total of three sets of tests were administered: a pre-test, an immediate recall test, and a delayed recall test.

On the immediate recall tests the critical ratio of 1.03 favored the study guide but fell below the selected five percent level of significance of 1.96. The mean gain on immediate recall was 3.3 and on delayed





recall it was but 1.78. Therefore, the critical ratio for the last test would be less than the 1.03 of the second test. An advantage was shown for the study guide but it was not statistically reliable.

### Results

The study reveals the following results:

1. The total mean gain with a study guide was greater than without a study guide on immediate recall test.
2. The critical ratio of 1.03 fell below the selected five percent level of significance of 1.96. Statistically, the results are unreliable. The chances are only 84.8 out of 100 that the method is superior.
3. The mean gain of 1.78 on delayed recall was not significant.
4. The mean gains for "eight-one" and "eight-two" on the delayed recall test contradicted each other. The total mean gain for the two classes still favored the guide.
5. On immediate recall, girls definitely profited from the use of a guide but for boys it made little difference. The sex ratio of the number of mean gains was 2.75 - 1 in favor of the girls.
6. On delayed recall, both boys and girls profited about the same from their original use of a guide. Eight girls gained with, seven without the guide. The ratio for the boys was three to two in favor of the guide.





### Conclusions

Having conducted the experiment and analyzed the data, the writer feels the following conclusions are justified.

1. Although the results are not statistically reliable, the values claimed for the study guide listed in Chapter III warrant the continuance of the oral study guide procedure.

2. Many of the advantages of the oral study guide are such that they cannot be measured. These include:

- a. The creation of more interest in the subject.
- b. An increase in the amount of outside reading.
- c. Better preparation of assigned work.
- d. An increase in student initiative.
- e. The creation of a problem-solving attitude.

3. For the teacher, the guide is an excellent means of motivation.

### Implications for Teachers

1. The oral study guide is an easy way for a teacher to improve methodology. Even a teacher in the smallest school might employ the experimental oral study guide which was used here for the sake of control.

2. The guides are not self-motivating; the teacher must remember that she is still an important factor.

### Limitations of Study

The writer is aware of the fact that the study has





certain limitations.

1. The number of students involved is a small number on which to judge. The number was smaller than the writer hoped to have at the start of the experiment. The decreased number was due to absence and to a changing school population.
2. The study was carried on at only one grade level and with only one subject. The size of the school prevented it from being otherwise.
3. The groups were not equated but the rotation technique enabled the writer to develop an adequate method of comparison.
4. The guides would have been more effective if given out in written form.

#### Suggestions for Further Study

The following suggestions for further study are recommended.

1. The study might well be tried at other grade levels to determine whether similar results would be obtained.
2. Experiments might be set up to compare the relative merits of other assignment techniques.
3. The duplication of the writer's efforts by other teachers would add weight to or discredit the author's findings, depending on the results. Outcomes obtained by other teachers would be highly significant in judging this study.





TABLE 1A  
 GRADE 8  
 END-TERM EXAM

Pupil	Score on Section				AVERAGE	Score on Section				AVERAGE
	1	2	3	4		1	2	3	4	
A	55	45	50	30	45	40	70	25	40	45
B	60	40	55	40	50	30	60	30	40	43
C	30	45	45	20	35	20	70	25	30	40
D	30	40	45	40	40	20	40	10	30	28
E	40	40	30							
F	30	25	25	40	30	10	20	20	40	33
G	60	60	50	60	54	15	50	15	50	40
H	55	40	40	60	45	30	10	30	40	38
I	70	30	25	40	45	35	70	30	30	40
J	40	35	30	30	35	70	40	40	70	54
K	60	55	60	45	55	50	55	40	40	53
L	30	35	5	60	35	0	10	10	50	18
M	60	50	40	60	54	30	40	30	50	42
N	60	50	30	40	45	35	40	40	55	43
O	65	60	55	65	60	50	60	40	50	55

A P P E N D I X





TABLE IX  
GROUP 8<sup>1</sup>  
PRE-TEST SCORES

Pupil	Score on Section				Aver- age	Score on Section				Aver- age
	1	3	5	7		2	4	6	8	
A	55	45	50	30	45	40	70	25	45	45
B	65	40	55	40	50	35	80	30	45	48
C	35	45	55	55	48	30	75	35	50	48
D	30	45	45	40	40	25	65	10	30	33
E	40	40	30	30	35	50	55	20	35	40
F	30	25	25	40	30	10	55	20	45	33
G	60	60	60	65	61	25	50	55	50	45
H	55	45	60	50	53	30	50	30	40	38
I	75	35	25	40	44	35	75	20	30	40
J	40	35	35	30	35	35	25	45	30	34
K	50	55	55	45	51	55	65	45	55	55
L	30	35	5	20	23	0	50	0	20	18
M	60	50	40	65	54	40	55	20	55	43
N	60	50	30	40	45	35	40	20	35	33
O	85	60	55	65	66	50	60	40	55	51





TABLE X  
GROUP 8<sup>1</sup>  
IMMEDIATE-RECALL TEST SCORES

Pupil	Score on Section				Average	Score on Section				Average
	1	3	5	7		2	4	6	8	
A	90	75	75	90	83	85	65	60	90	75
B	95	95	95	100	96	100	90	95	100	96
C	80	75	80	80	79	90	80	70	80	80
D	85	90	90	85	88	80	85	55	85	76
E	75	80	60	60	69	80	60	45	70	64
F	60	60	60	60	60	55	60	45	60	55
G	85	90	100	95	93	100	90	85	95	93
H	75	80	85	75	79	100	75	65	100	85
I	70	60	45	80	64	80	65	35	45	56
J	45	65	60	50	55	50	55	45	45	49
K	90	100	90	95	94	90	90	80	90	89
L	85	100	80	95	90	100	80	90	100	93
M	95	85	95	80	89	95	90	80	90	89
N	90	75	65	75	76	90	70	35	75	68
O	95	85	95	80	89	100	90	70	90	88



TABLE X  
GROUP 8  
IMMEDIATE-RECALL TEST SCORES

Pupil	Score on Section				Average Age	Score on Section				Average Age
	1	2	3	4		1	2	3	4	
A	90	75	75	90	83	85	85	60	90	75
B	85	85	85	100	88	100	90	95	100	83
C	80	75	80	80	79	90	80	70	80	80
D	85	90	90	80	88	80	85	55	85	78
E	75	80	60	60	69	80	60	45	70	84
F	80	80	80	60	60	55	80	45	80	55
G	85	90	100	85	93	100	90	85	95	83
H	75	80	85	75	79	100	75	55	100	85
I	70	80	45	80	64	80	85	35	45	54
J	45	65	60	50	55	50	85	45	45	45
K	90	100	90	90	95	90	90	60	90	84
L	85	100	80	90	90	100	80	55	100	78
M	95	85	85	80	85	95	80	60	90	89
N	90	75	65	70	76	90	70	55	70	85
O	95	85	95	80	89	100	90	70	90	78

TABLE XI  
GROUP 8<sup>2</sup>  
PRE-TEST SCORES

Pupil	Score on Section				Average	Score on Section				Average
	2	4	6	8		1	3	5	7	
AA	30	35	15	35	29	45	45	35	30	39
BB	20	40	25	25	28	80	35	40	50	51
CC	55	70	35	40	50	70	75	50	70	66
DD	50	55	25	40	43	45	50	35	30	40
EE	80	65	80	80	76	95	75	90	95	89
FF	65	55	45	40	51	55	50	40	50	49
GG	35	60	10	35	35	50	60	65	50	56
HH	65	75	30	50	55	60	50	60	60	58
II	35	55	25	50	41	55	40	40	60	49
JJ	55	45	25	30	39	55	45	60	45	51
KK	40	50	30	25	36	35	20	55	35	36
LL	45	75	25	45	48	60	35	60	50	51
MM	35	50	15	35	34	60	30	40	45	44
NN	40	60	20	45	41	45	35	35	50	41
OO	35	65	40	40	45	80	45	50	50	56
PP	50	50	55	65	55	55	50	50	65	55
QQ	45	60	20	40	41	75	55	40	55	56



TABLE XI  
GROUP B  
PRE-TEST SCORES

Proj	Score on Section				Aver- age	Score on Section				Aver- age
	2	4	5	8		1	3	5	7	
AA	30	35	15	35	25	45	45	35	30	32
AB	30	40	25	25	32	80	35	40	30	31
AC	35	70	35	40	50	70	75	30	70	50
AD	50	55	25	40	43	45	50	55	30	40
AE	80	65	80	80	78	35	75	70	35	55
AF	65	35	45	40	31	55	50	60	30	45
AG	35	60	10	35	35	50	60	65	30	50
AH	65	75	30	50	55	60	50	60	30	55
AI	35	55	25	50	41	55	40	40	60	45
AJ	55	45	25	30	39	55	45	80	35	57
AK	40	50	30	25	36	55	50	35	35	45
AL	45	75	65	45	48	60	35	80	30	51
AM	35	50	15	35	34	80	30	40	45	44
AN	40	60	30	45	41	45	35	35	30	43
AO	35	65	40	40	45	30	45	30	60	50
AP	50	50	55	65	55	35	50	30	60	50
AQ	45	60	30	40	41	75	35	40	35	55

TABLE XII  
 GROUP 8<sup>2</sup>  
 IMMEDIATE-RECALL TEST SCORES

Pupil	Score on Section				Average	Score on Section				Average
	2	4	6	8		1	3	5	7	
AA	80	70	50	90	73	80	90	95	85	88
BB	85	80	90	95	88	90	90	75	75	83
CC	100	95	70	90	89	95	75	100	80	88
DD	65	85	80	65	74	65	60	55	80	65
EE	100	100	95	100	99	100	95	100	80	94
FF	95	85	100	85	91	90	90	95	90	91
GG	70	80	35	35	55	65	85	75	65	73
HH	90	90	90	80	88	90	100	95	85	93
II	95	95	85	100	94	75	80	90	95	85
JJ	80	85	55	95	79	75	80	75	80	78
KK	95	90	85	95	91	85	90	90	85	88
LL	100	95	90	95	95	90	95	95	95	94
MM	85	70	60	80	74	85	70	80	80	79
NN	70	75	55	75	69	65	80	70	75	73
OO	100	95	60	90	86	90	70	95	90	86
PP	90	85	95	95	91	95	95	90	85	91
QQ	90	80	85	85	85	85	95	80	75	84



TABLE XII  
GROUP B  
IMMEDIATE-RECALL TEST SCORES

Pupil	Score on Section				Average age	Score on Section				Average age
	2	4	5	8		1	3	5	7	
AA	80	70	80	80	73	80	80	95	85	88
BB	85	80	80	95	88	90	90	75	75	85
CC	100	95	70	90	89	95	75	100	80	85
DD	85	85	80	65	74	65	80	55	60	61
EE	100	100	95	100	99	100	95	100	80	94
FF	95	85	100	85	91	90	90	95	90	91
GG	70	80	35	35	55	65	85	75	65	75
HH	90	90	90	90	89	90	100	95	85	95
II	95	95	85	100	94	75	80	90	95	88
JJ	80	85	55	95	79	75	80	75	80	75
KK	95	90	85	95	91	85	90	90	85	95
LL	100	95	90	95	95	90	95	95	95	94
MM	85	70	80	80	74	85	70	80	80	75
NN	70	75	65	75	65	65	80	70	75	75
OO	100	95	60	90	86	90	70	95	90	89
PP	90	85	95	95	91	95	95	90	85	91
QQ	90	80	85	85	89	85	95	80	75	84

TABLE XIII  
 GROUP 8<sup>1</sup>  
 DELAYED-RECALL TEST SCORES

Pupil	Score on Section				Aver- age	Score on Section				Aver- age
	1	3	5	7		2	4	6	8	
A	60	95	75	90	80	65	65	60	75	66
B	90	85	95	95	91	90	90	89	100	92
C	85	70	90	85	83	80	80	70	75	76
D	40	65	80	70	64	70	85	60	90	76
E	55	50	50	75	58	60	51	50	70	58
F	65	60	40	60	56	55	65	30	55	51
G	95	80	90	95	90	90	85	90	95	90
H	70	80	80	80	78	85	90	80	100	89
I	65	59	75	90	72	55	85	55	65	65
J	30	31	70	55	47	60	40	29	50	45
K	90	85	90	95	90	75	95	70	95	84
L	70	85	85	95	84	95	90	75	100	90
M	90	70	80	80	80	70	75	80	90	79
N	75	35	50	70	58	70	60	45	70	61
O	100	90	80	90	90	95	90	85	90	90



DELAWARE-RECALL TEST SCORES  
GROUP B  
TABLE XIII

Pupil	Score on Section				Average	Score on Section				Average
	1	2	3	4		1	2	3	4	
A	60	95	75	80	80	85	85	80	75	80
B	90	85	95	90	91	90	90	95	100	93
C	85	70	80	80	83	80	80	70	75	78
D	40	85	80	70	64	70	85	80	80	75
E	55	80	50	61	58	80	61	50	70	58
F	65	60	40	65	56	55	65	30	55	51
G	95	80	90	90	90	90	85	90	95	90
H	70	80	80	90	78	85	90	80	100	87
I	65	55	75	85	72	85	85	55	85	83
J	30	31	70	40	47	60	40	35	30	45
K	90	85	90	75	90	75	95	70	95	84
L	70	85	85	95	84	95	90	75	100	90
M	90	70	80	75	80	70	75	80	90	79
N	75	55	50	80	58	70	80	45	70	61
O	100	90	80	90	90	95	90	85	90	90

TABLE XIV  
 GROUP 8<sup>2</sup>  
 DELAYED-RECALL TEST SCORES

Pupil	Score on Sections				Average	Score on Sections				Average
	2	4	6	8		1	3	5	7	
AA	70	85	65	80	75	75	80	90	70	79
BB	61	95	75	75	77	85	70	85	80	80
CC	95	85	90	90	90	80	85	100	85	88
DD	40	45	45	50	45	55	50	40	40	46
FF	85	80	100	80	86	80	72	100	100	88
GG	68	75	40	45	57	35	70	76	70	63
HH	80	85	80	90	84	75	85	85	80	81
II	95	85	80	100	90	75	85	90	85	84
JJ	55	55	40	65	54	50	45	50	50	49
KK	70	65	65	85	71	80	90	75	70	79
LL	75	95	80	85	84	70	65	85	80	75
MM	69	80	33	60	61	61	45	79	50	59
NN	75	55	60	55	61	65	65	55	65	63
PP	85	90	85	85	86	90	85	85	90	88
QQ	80	85	85	85	84	80	80	76	70	77



TABLE XIV  
GROUP 8  
DETAILED-RECORD TEST SCORES

Pupil	Score on Sections				Average age	Score on Sections				Average age
	1	2	3	4		1	2	3	4	
AA	70	85	88	80	78	78	80	88	70	78
BB	61	95	73	75	77	65	70	85	60	68
CC	85	88	90	90	90	80	88	100	95	88
DD	40	45	45	50	45	55	50	45	40	48
EE	85	80	100	80	85	80	75	110	100	85
FF	68	75	40	45	64	60	70	70	70	68
GG	80	85	80	90	84	75	65	85	80	78
HH	95	85	90	100	90	75	85	90	11	84
II	55	55	40	65	54	50	65	50	50	52
JJ	70	60	65	71	68	60	65	75	70	68
KK	75	95	80	65	84	70	65	75	60	72
LL	89	80	88	60	81	65	75	75	60	72
MM	75	85	60	55	61	65	65	65	60	68
NN	65	90	85	85	85	80	85	85	90	85
OO	80	85	85	85	84	80	80	75	70	78

TABLE XV  
 GROUP 8<sup>1</sup>  
 MEAN GAINS ON  
 DELAYED RECALL TESTS

Pupil	Average of Sections 1, 3, 5, 7		MEAN  Gain	Average of Sections 2, 4, 6, 8		MEAN  GAIN	
	Pre- Test	Delayed Recall Test, Guide		Pre- Test	Delayed Recall Test, No Guide		
A	45	80	35	45	66	21	
B	50	91	41	48	92	44	
C	48	83	35	48	76	28	
D	40	64	24	33	76	43	
E	35	58	23	40	58	18	
F	30	56	26	33	51	18	
G	61	90	29	45	90	45	
H	53	78	25	38	89	51	
I	44	72	28	40	65	25	
J	35	47	12	34	45	11	
K	51	90	39	55	84	29	
L	23	84	61	18	90	72	
M	54	80	26	43	79	36	
N	45	58	13	33	61	28	
O	66	90	24	51	90	39	
Total			441	Total			508



TABLE XV  
GROUP 2  
MEAN GAIN ON  
DELAYED RECALL TESTS

Pupil	Average of Sections 1, 2, 3, 7		MEAN	Average of Sections 4, 5, 6, 8		Gain
	Pre-Test	Delayed Recall Test, 24 hrs.		Pre-Test	Delayed Recall Test, 24 hrs.	
A	45	80	35	45	80	35
B	50	91	41	38	98	60
C	48	83	35	48	75	27
D	40	64	24	43	70	27
E	55	88	33	40	68	28
F	50	80	30	38	61	23
G	51	90	39	45	60	15
H	53	78	25	38	63	25
I	44	72	28	40	58	18
J	38	47	12	34	48	14
K	51	90	39	43	64	21
L	48	64	16	40	50	10
M	54	80	26	43	70	27
N	45	88	43	38	61	23
O	68	90	22	47	80	33

Total 441

Total 508

TABLE XVI  
 GROUP 8<sup>2</sup>  
 MEAN GAINS ON  
 DELAYED RECALL TESTS

Pupil	Average of Sections 2, 4, 6, 8		MEAN  GAIN	Average of Sections 1, 3, 5, 7		MEAN  GAIN
	Pre- Test	Delayed Recall Test, Guide		Pre- Test	Delayed Recall Test, No Guide	
AA	29	75	46	39	79	40
BB	28	77	49	51	80	29
CC	50	90	40	66	88	22
DD	43	45	2	40	46	6
FF	51	86	35	49	88	39
GG	35	57	22	56	63	7
HH	55	84	29	58	81	23
II	41	90	49	49	84	35
JJ	39	54	15	51	49	-2
KK	36	71	35	36	79	43
LL	48	84	36	51	75	24
MM	34	61	27	44	59	15
NN	41	61	20	41	63	22
PP	55	86	31	55	88	33
QQ	41	84	43	56	77	21
Total 479				Total 357		



TABLE XVI  
GROUP B<sup>2</sup>  
MEAN GAINS ON  
DELAYED RECALL TESTS

Profile	Average of Sections 2, 4, 6, 8		MEAN GAIN	Average of Sections 1, 3, 5, 7		Error
	Pre-Test	Delayed Recall Test, Guide		Pre-Test	Delayed Recall Test, No Guide	
AA	29	75	46	39	73	40
BB	28	77	49	31	80	38
CC	30	90	40	68	88	32
DD	43	45	2	47	46	4
EE	51	66	35	49	82	39
GG	35	57	72	50	51	7
HH	35	84	39	58	81	32
II	41	60	69	45	52	36
JJ	39	54	15	31	40	-10
KK	56	71	36	56	71	43
LL	48	84	36	51	78	33
MM	34	61	27	41	55	14
NN	41	61	20	41	55	2
PP	35	86	31	56	63	11
QQ	41	84	43	51	77	31
Total 279		Total 279		Total 279		

## COMPLETE SAMPLE GUIDE FOR UNIT I

### UNIT PROBLEM

How did American life become better for the common man?

### SECTION 1

Problem: What benefits and problems were brought about by the beginnings of the Industrial Revolution?

Guide Problem: Where, when, and how did manufacturing start in the United States?

Hints: What was life like on a New England farm in 1800?

What Englishmen invented machines which encouraged the growth of factories?

How did Samuel Slater contribute to the early industrial life of the United States?

What effect did the War of 1812 have upon our manufacturing?

In what section of the country did manufacturing begin? What were some of the leading cities?

What people worked in factories?

What contribution to American life did these men make? Elias Howe, I. M. Singer.

What is a trade union?

Guide Problem: How were mechanical problems solved?

Hints: How did Valley Forge get its name?

Where did iron come from both before and after the Revolutionary War?

What were the first two sources of power for machines in America?

What effect did the Appalachian Mountains have upon the industrial life of the United States?

Contrast methods of farming before and after 1830?

How did the invention of farm machinery benefit the entire nation?

What effect did Eli Whitney's life have upon the South?



COMPLETE SAMPLE GUIDE FOR UNIT I

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How did American life become better for the common man?

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Problem: What benefits and problems were brought about by the beginnings of the Industrial Revolution?

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turing start in the United States?

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ery benefit the entire nation?

What effect did Eli Whitney's life

have upon the South?

Guide Problem: What pressing problems were brought about by the new inventions?

Hints: What effect did the new inventions have upon the problems of slavery and the tariff?

What three men were to become the leaders of their sections in the period 1825 - 1850?

## SECTION 2

Problem: How was democracy strengthened by the Revolution of 1828?

Guide Problem: Why did Jackson appeal to the common man?

Hints: What personal traits of Andrew Jackson made him popular?

What incidents in his life developed his character or appealed to the people?

The election of Jackson meant that what type of people were coming into political power?

What political party did he represent?

What was Jackson's idea of the presidency?

What is meant by the "Spoils System"?

Guide Problem: How did the tariff question threaten the union?

Hints: Why did New Englanders desire a higher tariff in the 1820's?

How does a tariff help the government?

How did the Tariff of Abominations effect the various sections of the country?

By 1830 what factors were contributing to the hard times being experienced in South Carolina and other southern states?

The South thought their difficulties due to what?

What was the general idea of South Carolina's "Exposition"?

What is "nullification"?

What attitude did the following take on nullification? Hayne, Jackson, Calhoun, and Webster.

What steps did Jackson take to preserve



Guide Problem: What pressing problems were brought about by the new inventions?  
 Hint: What effect did the new inventions have upon the problems of slavery and the tariff?  
 What three men were to become the leaders of their sections in the period 1825 - 1850?

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 What was Jackson's idea of the presidency?  
 What is meant by the "Spoils System"?

Guide Problem: How did the tariff question threaten the Union?  
 Hint: Why did New Englanders desire a higher tariff in the 1820's?  
 How does a tariff help the government?  
 How did the tariff of 1828 affect the various sections of the country?  
 By 1850 what factors were contributing to the hard times being experienced in South Carolina and other southern states?  
 The South thought their difficulties due to what?  
 What was the general idea of South Carolina's "Exposition"?  
 What is "nullification"?  
 What attitude did the following take on nullification? Calhoun, Jackson, Webster.  
 What steps did Jackson take to preserve

the union?

How was the dispute finally settled?

Guide Problem: Why did Jackson end the second Bank of the United States?

Hints: What was the history of the United States Bank up to 1836?

Who were the candidates and what were the issues in the election of 1832?

By 1832 what had happened to the Federalist and Democratic-Republican parties?

What were "pet banks"?

Guide Problem: By 1837 how had the slogan of Jackson, "Let the people rule," been carried out?

Hints: How had the right to vote been extended?

What change had been made in the method of nominating candidates for the presidency?

How had the electoral system been changed?

How had state constitutions been changed?

Guide Problem: How did the panic of 1837 effect the people?

Hints: What factors contributed to the panic?

What happened to families?

How did they solve their problem?

What happened to the political parties?

### SECTION 3

Problem: How did Americans seek a better life for all in the first half of the nineteenth century?

Guide Problem: Why were reforms started?

Hints: What is meant by a reform?

Have Americans settled the social problems which they attacked in the nineteenth century?

What changes were made in society's attitude toward the insane, the sick, and the intoxicated?

Identify Dr. Morton and Neal Dow.

Why were women dissatisfied with their position?



the union?

How was the dispute finally settled?

Guide Problem: Why did Jackson end the second

bank of the United States?

Hint: What was the history of the United

States Bank up to 1833?

Who were the candidates and what were

the issues in the election of 1832?

By 1832 what had happened to the Fed-

eralist and Democratic-Republican parties?

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How had the electoral system been

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How had state constitutions been

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Guide Problem: How did the panic of 1837 affect

the people?

Hint: What factors contributed to the panic?

What happened to farmers?

How did they solve their problems?

What happened to the political parties?

## SECTION 3

Problem: How did Americans view a better life in 1811

in the first half of the nineteenth century?

Guide Problem: Why were reforms started?

Hint: What is meant by a reform?

Have Americans settled the social

problems which they attacked in the nineteenth

century?

What changes were made in society's

attitude toward the insane, the sick, and the

intoxicated?

Identify Dr. Gordon and West 1811.

Why were women dissatisfied with their

position?

How did the leaders of the women's suffrage movement promote democracy?

Guide Problem: Why is education necessary in a democracy?

Hints: In the first half of the nineteenth century how did Americans work to improve their educational system?

What section of the country set up a public school pattern which has been widely copied?

Why do all adults have to help support the schools?

What people were leaders in the movement to make the schools free to all children?

Why are newspapers important in our society?

Guide Problem: What did American writers and musicians express in their work?

Hints: What effect has the negro had on the musical life of the United States?

What are "folk songs"?

What are "negro spirituals"?

Who were some of the early American writers and for what should they be remembered?



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What are "negro spirituals"?  
Who were some of the early American  
writers and for what should they be remembered?

## TEST ON UNIT I -- SECTION 1

NAME: \_\_\_\_\_

1. - 4. In the parentheses before each name in column 1 place the correct number of the item in column 2.

- |                     |   |
|---------------------|---|
| ( ) Elias Howe      | 1. Built first clipper ship.                  |
| ( ) Cyrus McCormick | 2. Invented the cotton gin.                   |
| ( ) Samuel Slater   | 3. Invented sewing machine.                   |
| ( ) Eli Whitney     | 4. Built earliest textile machine in America. |
|                     | 5. Invented steam engine.                     |
|                     | 6. Invented farm machinery.                   |

5. - 7. Between 1820 - 1850 three men representing various sections were leading figures in national life. Choose one correct answer for each blank from those in parentheses.

(John Adams, John Calhoun, Henry Clay, DeWitt Clinton, Samuel Slater, James Watt, Daniel Webster)

\_\_\_\_\_ representing the West.

\_\_\_\_\_ representing the North.

\_\_\_\_\_ representing the South.

8. - 9. The following have made their appearance as sources of power in the United States at various times. Put a 1 in parentheses before that first used and a 2 before that most recently developed.

- ( ) Oil
- ( ) Steam
- ( ) Water



# TEST ON UNIT 1 -- SECTION 1

Name: \_\_\_\_\_

1. - 4. In the parentheses before each name in column 1 place the correct number of the item in column 2.

- |   |                    |     |
|---|--------------------|-----|
| 1. Eli's first airplane.                      | 1. Elias Howe      | ( ) |
| 2. Invented the cotton gin.                   | 2. Cyrus McCormick | ( ) |
| 3. Invented sewing machine.                   | 3. Samuel Slater   | ( ) |
| 4. Eli's earliest textile machine in America. | 4. Eli Whitney     | ( ) |
| 5. Invented steam engine.                     |                    |     |
| 6. Invented farm machinery.                   |                    |     |

5. - 7. Between 1820 - 1850 three men representing various sections were leading figures in national life. Choose one correct answer for each blank from those in parentheses.

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( ) Oil

( ) Steam

( ) Water

10. - 14. In the following statements or questions only one answer is correct or better than all others. Place the number of the correct or best answer in the parentheses to the left of the question.

- ( ) What country wanted to prevent the United States from becoming an industrial nation? (1. England, 2. France, 3. Germany, 4. Russia).
- ( ) The economic life of the South meant that it would: (1. favor a high tariff, 2. be uninterested in the tariff problem, 3. favor a low tariff, 4. side with the North).
- ( ) The first factory workers were: (1. union members, 2. men, 3. women, 4. slaves).
- ( ) The invention of the cotton gin meant that the South: (1. required fewer slaves, 2. needed more slaves, 3. wanted a low tariff, 4. reduced the price of slaves).
- ( ) Which war hastened the beginnings of the Industrial Revolution in the United States? (1. the Revolutionary War, 2. the War of 1812, 3. the Civil War, 4. World War I).

15. - 20. In the following statements one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

- ( ) The first factories were located in New England because: (1. there were no slaves, 2. there was abundant water power, 3. the soil did not favor agriculture, 4. there was a labor supply).
- ( ) New inventions brought problems which tended to: (1. unite the North and South, 2. divide the North and South, 3. develop sectionalism, 4. hasten the Civil War).
- ( ) The invention of farm machinery meant that agricultural workers: (1. could produce more food, 2. could cultivate more land, 3. would join labor unions, 4. would decrease in number).



10. - 14. In the following statements or questions only one answer is correct or better than all others. Place the number of the correct or best answer in the parentheses to the left of the question.

( ) ( ) What country wanted to prevent the United States from becoming an industrial nation? (1. England, 2. France, 3. Germany, 4. Russia).

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15. - 20. In the following statements one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

( ) ( ) The first factories were located in New England because: (1. there were no slaves, 2. there was abundant water power, 3. the soil did not favor agriculture, 4. there was a labor supply).

( ) ( ) New inventions brought problems which began to: (1. unite the North and South, 2. divide the North and South, 3. develop sectionalism, 4. hasten the Civil War).

( ) ( ) The invention of farm machinery meant that agricultural workers: (1. could produce more food, 2. could cultivate more land, 3. would join labor unions, 4. would decrease in number).

- ( ) The Industrial Revolution meant that goods were made: (1. in homes, 2. in mills, 3. in New England, 4. in factories).
- ( ) The rise of the factory system meant: (1. the growth of cities, 2. the beginning of the labor movement, 3. better working conditions, 4. new products for the people).
- ( ) The growth of the iron industry was due in part to: (1. the discovery of new deposits, 2. the demand for machinery, 3. the westward movement, 4. the growth of Pittsburgh).
- ( ) Second Bank of the United States
- ( ) Treasury vaults

3. - 5. In the parentheses before each item in column 1 place the correct number of the item in column 2.

- |              |  |
|--------------|--|
| ( ) Callahan | 1. Widely applied public system.         |
| ( ) Jackson  | 2. Broad doctrine of nullification.      |
| ( ) Webster  | 3. Organized national party conventions. |
|              | 4. Believed in high protective tariffs.  |

6. - 7. Fill in the blanks.

A debate over the question of states' rights against national rights was held between Hays and \_\_\_\_\_.

"Old Hickory" was the name often applied to \_\_\_\_\_.

8. - 10. In the following statements only one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

- ( ) Andrew Jackson was the idol of: (1. the westerner, 2. the farmer, 3. the aristocracy, 4. the city worker).



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( ) The Industrial Revolution meant that goods were made: (1. in homes, 2. in mills, 3. in new England, 4. in factories).

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## TEST ON UNIT I -- SECTION 2

NAME: \_\_\_\_\_

1. - 2. Between 1816 - 1840 the United States government put its money in various places for safe-keeping. Put a 1 before that in use first in the list and a 2 before that in use last.

- ( ) Pet banks
- ( ) Second Bank of the United States
- ( ) Treasury vaults

3. - 5. In the parentheses before each item in column 1 place the correct number of the item in column 2.

- |             |   |
|-------------|---|
| ( ) Calhoun | 1. Widely applied Spoils System.          |
| ( ) Jackson | 2. Spread doctrine of nullification.      |
| ( ) Webster | 3. Originated national party conventions. |
|             | 4. Believed in high protective tariffs.   |

6. - 7. Fill in the blanks.

A debate over the question of states rights against national rights was held between Hayne and \_\_\_\_\_.

"Old Hickory" was the name often applied to \_\_\_\_\_.

8. - 10. In the following statements only one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

- ( ) Andrew Jackson was the idol of: (1. the westerner, 2. the farmer, 3. the aristocracy, 4. the city worker).



# TEST ON UNIT I -- SECTION 2

NAME: \_\_\_\_\_

1. - 2. Between 1815 - 1860 the United States government put its money in various places for safe-keeping. Put a 1 before that in use first in the list and a 2 before that in use last.

( ) 1. Pet banks

( ) 2. Second Bank of the United States

( ) 3. Treasury vaults

3. - 5. In the parentheses before each item in column 1 place the correct number of the item in column 2.

( ) 1. Calhoun  
1. Widely applied Spoils System.

( ) 2. Jackson

( ) 3. Webster  
2. Spread doctrine of nullification.

( ) 4. Originalist national party conventions.

( ) 5. Believed in high protective tariffs.

6. - 7. Fill in the blanks.

A debate over the question of states rights against national rights was held between Fiske and \_\_\_\_\_.

"Old Hickory" was the name often applied to \_\_\_\_\_.

8. - 10. In the following statements only one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

( ) 1. Andrew Jackson was the idol of the westerners.  
2. the farmer, 3. the aristocracy, 4. the city workers.

- ( ) The following helped cause the Panic of 1837:  
 (1. people bought more land than they could pay for, 2. the United States Bank had been destroyed, 3. people speculated in western land, 4. the Whig Party frightened people by its action).
- ( ) The "Spoils System" means: (1. rotation in office, 2. the best qualified get the jobs, 3. party workers get the jobs, 4. frequent changes in office).
11. - 20. In the following statements or questions only one answer is correct or better than all others. Place the number of the correct or best answer in the parentheses to the left of the question.
- ( ) With the election of William Henry Harrison, which political party came into office? (1. Democratic Party, 2. Democratic-Republican Party, 3. Republican Party, 4. Whig Party).
- ( ) While Andrew Jackson was president the right to vote was extended to: (1. more male citizens, 2. negroes, 3. women, 4. all citizens).
- ( ) The protective tariff of 1828 helped: (1. Europeans, 2. plantation owners, 3. factory owners, 4. the West).
- ( ) Between 1828 - 1833 the union was threatened by the problem of: (1. embargo, 2. slavery, 3. tariff, 4. labor unions).
- ( ) In 1832 which state threatened to leave the union? (1. Connecticut, 2. New York, 3. South Carolina, 4. Virginia).
- ( ) During the administration of Andrew Jackson the right to choose members of the Electoral College was turned over to: (1. the Senate, 2. the State legislatures, 3. the people, 4. the judges).
- ( ) Andrew Jackson believed in: (1. the supremacy of the union, 2. nullification, 3. National Banks, 4. the rule of the educated only).
- ( ) By 1828 the South blamed its hard times on what one factor? (1. the wearing out of the soil, 2. the high tariff rates, 3. the adequate supply of cotton, 4. the increased cost of slaves).



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- ( ) By 1828 the South blamed its hard times on what one factor? (1. the wearing out of the soil, 2. the high tariff rates, 3. the adequate supply of cotton, 4. the increased cost of slaves).

- ( ) Which of the following presidents was also a military hero? (1. John Quincy Adams, 2. Andrew Jackson, 3. Thomas Jefferson, 4. James Monroe).
- ( ) In the United States today the Panic of 1837 would be called: (1. depression, 2. excise tax, 3. income tax, 4. tariff).

- ( ) Sarah M. Fuller  
1. A leader in the abolition movement.
- ( ) Stephen Foster  
2. A leader in the temperance movement.
- ( ) Nathaniel Hawthorne  
3. A leader in the abolition movement.
- ( ) Henry Longfellow  
4. A leader in the abolition movement.
- ( ) Mary Lyon  
5. A leader in the abolition movement.
- ( ) Harriet Beecher Stowe  
6. A leader in the abolition movement.
- ( ) Elizabeth Cady Stanton  
7. A leader in the abolition movement.
- ( ) Frederick Douglass  
8. A leader in the abolition movement.
- ( ) William Lloyd Garrison  
9. A leader in the abolition movement.
- ( ) Harriet Beecher Stowe  
10. A leader in the abolition movement.
- ( ) Harriet Beecher Stowe  
11. A leader in the abolition movement.
- ( ) Harriet Beecher Stowe  
12. A leader in the abolition movement.

4. & 19. In the following statements, which are correct? Mark the correct or better than all others. Mark the correct or better than all others. Mark the correct or better than all others. Mark the correct or better than all others.

- ( ) The reform movement began in the 18th century.
- ( ) Women received the right to vote in 1848.
- ( ) The reform movement began in the 18th century.
- ( ) Women received the right to vote in 1848.



- ( ) Which of the following presidents was also a military hero? (1. John Quincy Adams, 2. Andrew Jackson, 3. Thomas Jefferson, 4. James Monroe).
- ( ) In the United States today the Fair Labor Standards Act would be called: (1. depression, 2. excise tax, 3. income tax, 4. tariff).

## TEST ON UNIT I -- SECTION 3

NAME: \_\_\_\_\_

1. - 8. In the parentheses before each name in column 1 place the correct number of the item in column 2.

- |                         |   |
|-------------------------|---|
| ( ) Dorothea Dix        | 1. A leader in public education.                |
| ( ) Stephen Foster      | 2. A leader in the temperance movement.         |
| ( ) Nathaniel Hawthorne | 3. A leader in the suffrage movement.           |
| ( ) Henry Longfellow    | 4. A leader in developing the American theater. |
| ( ) Mary Lyon           | 5. A leader in developing education for girls.  |
| ( ) Horace Mann         | 6. A leader in reforms for the insane.          |
| ( ) Elizabeth Stanton   | 7. A writer of minstrel songs.                  |
| ( ) Frances Willard     | 8. A New England author.                        |
|                         | 9. A New England poet.                          |

9. - 17. In the following statements only one answer is correct or better than all others. Place the number of the correct or best answer in the parentheses to the left of the question.

- ( ) The reform movement began in the: (1. 17th century, 2. 18th century, 3. 19th century, 4. 20th century).
- ( ) Women received the right to vote: (1. before the negro, 2. after World War I, 3. during the Jacksonian Era, 4. after the War of 1812).



TEST ON UNIT 1 -- SECTION 2

NAME: \_\_\_\_\_

1. - 8. In the parentheses before each name in column 1 place the correct number of the item in column 2.

- |   |                        |     |     |
|---|------------------------|-----|-----|
| 1. A leader in public education.                | 1. Corrother Dix       | ( ) | ( ) |
| 2. A leader in the temperance movement.         | 2. Stephen Foster      | ( ) | ( ) |
| 3. A leader in the anti-slavery movement.       | 3. Nathaniel Hawthorne | ( ) | ( ) |
| 4. A leader in developing the American theater. | 4. Henry Longfellow    | ( ) | ( ) |
| 5. A leader in developing education for girls.  | 5. Mary Lyon           | ( ) | ( ) |
| 6. A leader in reforms for the insane.          | 6. Horace Mann         | ( ) | ( ) |
| 7. A writer of sentimental songs.               | 7. Elizabeth Stanton   | ( ) | ( ) |
| 8. A new type of religion.                      | 8. Frances Willard     | ( ) | ( ) |
| 9. A new English novel.                         |                        |     |     |

9. - 14. In the following statements only one answer is correct or better than all others. Place the number of the correct or best answer in the parentheses to the left of the question.

- |  |     |     |
|--|-----|-----|
| 10. The reform movement began in the 17th century.                             | ( ) | ( ) |
| 11. The 18th century, 19th century, 20th century.                              | ( ) | ( ) |
| 12. Women received the right to vote in 1790.                                  | ( ) | ( ) |
| 13. After World War I, 2. during the Jacksonian Era, 4. after the War of 1812. | ( ) | ( ) |

- ( ) The early high schools admitted: (1. only the sons of the wealthy, 2. only boys, 3. only girls, 4. both boys and girls).
- ( ) The first important contribution by Americans to the world of music was the: (1. minstrel, 2. negro spiritual, 3. minuet, 4. jazz).
- ( ) Which form of government more than any other, requires that all its people be educated? (1. Communism, 2. Democracy, 3. Dictatorship, 4. Monarchy).
- ( ) The movement for free public schools in the early 19th century developed in: (1. the North, 2. the Northwest, 3. the South, 4. the West).
- ( ) The first tax supported high school was located in: (1. Boston, 2. New Orleans, 3. Philadelphia, 4. Richmond).
- ( ) In colonial America the plantation owners of the South educated their children: (1. by sending them to northern high schools, 2. by sending them to church schools, 3. by hiring tutors, 4. by teaching the children themselves).
- ( ) A forerunner of the modern high school is: (1. the secondary school, 2. the college, 3. the tutor, 4. the academy).

18. - 20. In the following statements one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

- ( ) In the early 18th century the insane were kept: (1. in cellars of poor houses, 2. in hospitals, 3. in attics of private homes, 4. in chains).
- ( ) Citizens of the United States are able to carry on their government intelligently because of the help of: (1. magazines, 2. newspapers, 3. public schools, 4. missionaries).
- ( ) American authors, in the nineteenth century, wrote about: (1. the American way of life, 2. events in American History, 3. events in Asiatic History, 4. the frontier).



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18. - 20. In the following statements one answer is incorrect. Place the number of the wrong answer in the parentheses to the left of the question.

( ) ( ) In the early 18th century the Germans were kept: (1. in cellars of poor houses, 2. in hospitals, 3. in attics of private houses, 4. in churches).

( ) ( ) Citizens of the United States are able to carry on their government intelligently because of the help of: (1. magazines, 2. newspapers, 3. public schools, 4. missionaries).

( ) ( ) American authors, in the nineteenth century, wrote about: (1. the American way of life, 2. events in American History, 3. events in Asiatic History, 4. the frontier).

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